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New Series, No. 83.

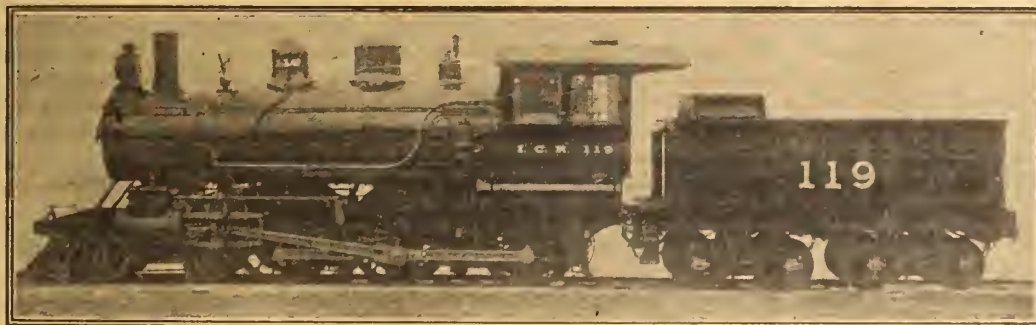
TORONTO, CANADA, JANUARY, 1905.

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OLD SERIES, No. 165.
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TORONTO, CANADA, JANUARY, 1905.

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The Railway Commissioners' Rules.

The Board of Railway Commissioners, acting under the powers conferred upon it by the Railway Act, 1903, sec. 40, has drawn up rules and regulations governing the procedure and practice, and generally for carrying the act into effect. These were published in the Canada Gazette of Nov. 26, and became of the same effect as if they formed part of the act. The Board may, upon terms or otherwise, make or allow any amendments in any proceedings before it.

The regulations provide that the general sessions of the Board for hearing contested cases shall be at its court room at Ottawa, on such dates and at such hours as may be designated; and that when special sessions are to be held at other places, such announcements as may be necessary will be made by the Board. The interpretation section provides that in the succeeding sections "application" shall include complaint; "Respondent" shall mean the person or company called upon to answer any application or complaint; "affidavit" shall include affirmation; and "costs" shall include fees, counsels' fees and expenses.

Every proceeding before the Board shall be commenced by an application in writing, signed by the applicant or his solicitor, or by the manager, secretary or solicitor of a corporate body. Such application shall contain a clear and concise statement of the facts, the grounds of application, the section of the act under which the application is made, and the nature of the order applied for, or the relief or remedy to which the applicant claims to be entitled. Such application is to be left with or mailed to the Secretary, together with a copy of any document, or copies of maps, etc., as required by the act, or which may be useful in explaining or supporting the same. The applications should be numbered, and a docket of cases made up, by the Board; such docket shall be published upon a notice board in the office at Ottawa, which shall be open for inspection of the public during office hours. Within ten days from the service of the application, the respondent or respondents shall mail or deliver to the applicant, a written statement containing an answer to the application, and a copy of the same shall be delivered to the Secretary of the Board. The answer may admit the whole or any part of the facts in the application, and shall be accompanied by maps, etc., necessary to explain or support it. The applicant shall, within four days after delivery of the answer to the application, deliver a reply thereto to the respondents, and send a copy of the same to the Board. In this reply the applicant may object to the answer as being insufficient, stat-

ing the grounds of such objection, or denying the facts stated, or may admit the whole or part of the facts. The Board may at any time require the whole or any part of the application, answer or reply to be verified by affidavit, upon giving notice to that effect; and in the event of the affidavit not being given, the application, answer or reply, may be set aside, or such part as is not verified according to the notice may be struck out. The Board may require further information, or particulars, or documents from the parties, and may suspend all proceedings until satisfied in this respect. If, at any stage of the pro-

ceedings, the Board desires to direct inquiries to be made under any of the provisions of the act, it shall give notice to the parties interested. In all proceedings where notice is required, a copy of the proceedings shall be endorsed with notice to the parties, and in default of appearance the Board may hear and determine the application ex parte. The Board may enlarge or abridge the periods for putting in the answer or reply, and for hearing the application, in which case the period shall be endorsed in the notice. Except, where otherwise provided, ten days' notice of any application, or of any hearing, shall be sufficient. The Board, upon the grounds of urgency, or for other sufficient reasons, may make orders or decisions, notwithstanding the fact that due notice had not been given. In such cases, however, any person entitled to notice, and not sufficiently notified, may within ten days after becoming aware of such order or decision, apply to the Board to have the order rescinded or varied, and the Board, on due notice, shall proceed to hear such application, and may vary or rescind the order as may seem to it just and right. In all cases the parties may consent to dispense with the form of proceedings mentioned; and the Board may, should it appear necessary, direct the parties to prepare issues which, should the parties differ, shall be settled by the Board. Points of law, which it is desirable to have settled before the merits of the application are decided upon, may be raised and decided upon a special case or in such other way as may be expedient. The Board may hold a preliminary meeting in connection with any application, or may communicate with the parties direct, and may require answers to such inquiries as it may consider necessary. The production of documents, etc., may be required by either party, and notices to produce, notices to admit, etc., may be given as required. The attendance and examination of witnesses shall be enforced in the same manner as in the Superior Courts, and witnesses shall be paid fees and allowances as prescribed by a schedule attached. Evidence is to be given viva voce, except where affidavits are required; and the Board may direct the examination of any special witness upon a specific matter by a commissioner. Written briefs may be required from the parties to the application, and the hearing of the case shall be prosecuted from day to day until completed, unless for special reasons an adjournment is necessary.

After the hearing of the case the Board may dismiss the application, or make an order thereon in favor of the respondents, or reserve its decision, or make such order as may be warranted by the evidence; it may give verbally or in writing the reasons for its decision, and a copy of the order made shall be delivered to the respective parties. Any decision or order may be made an order of the Exchequer Court, or a rule, order or decree of any Superior Court of any of the Provinces, and shall be enforced as if given directly by such court. Any application to the Board to review, rescind or vary any decision or order shall be made within 30 days after such decision has been communicated to the parties, but the Board may enlarge the time if neces-



C. E. E. USSHER.

General Passenger Agent, C.P.R. Eastern Lines.

ceedings, the Board desires to direct inquiries to be made under any of the provisions of the act, it shall give notice to the parties interested. In all proceedings where notice is required, a copy of the proceedings shall be endorsed with notice to the parties, and in default of appearance the Board may hear and determine the application ex parte. The Board may enlarge or abridge the periods for putting in the answer or reply, and for hearing the application, in which case the period shall be endorsed in the notice. Except, where otherwise provided, ten days'

(Continued on page 5.)

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ria, B. C., P. Gordon; Vancouver, B. C., T. M.
Heard; Lewis, Que., E. Belanger; Sorel, Que., A. L. de
Martigny; Owen Sound, J. M. Wilson; Windsor, Ont.,
N. Maitland.

NEXT ANNUAL MEETING of the Grand Council, in
Collingwood, Ont., fourth Tuesday in Jan., 1905.

Niagara Frontier Summer Rate Committee.

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THE RAILWAY AND SHIPPING WORLD,
Toronto.

A story is going the rounds about a green
recruit from the old sod who was walking with
his brother through a railway cut on a pleas-
ant Sunday afternoon. When a train came
up behind them and whistled, the experienced
Irishman clambered up the bank, while his
brother struck off down the track as hard as
he could run, only to be overtaken and tossed
about forty rods by the cowcatcher. The
brother rushed to his side and shouted:—
"Moike, are ye hurted?"
"Sure! I'm killed entirely."
"Why didn't ye climb the bank?"
"Well if I couldn't bate it on the level,"
snorted the wounded Irishman, "how in
thunder could I bate it climbing hills?"

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The John Bertram & Sons Co., Dundas,
Ont., received the order for the following tools
for the additions to the G.T.R. locomotive
shops at Stratford, Ont.:—wheel turning
lathes; engine turning lathes, varying in size
from 16 to 36 ins.; shaping machines; bor-
ing and turning mills; drilling machines; bolt
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Westminster, S.W.

The Railway Commissioners' Rules.*(Continued from page 1.)*

sary. Should either of the parties desire to appeal to the Supreme Court of Canada from the Board's decision upon any question, which is a question of law, 14 days' notice shall be given to the Secretary, and to the other party, stating the grounds upon which it is desired to appeal, but the granting of leave to appeal shall be at the discretion of the Board. The procedure in the case of an appeal is laid down in sec. 44, sub-sec. 4. The Board may make interim ex parte orders; such orders, however, shall be for such time only as is necessary to enable the matter to be heard and determined. Affidavits of service shall be filed with the Board; all persons authorized to administer oaths to be used in the Superior Courts of the Provinces may take affidavits to be used before the Board; affidavits used before the Board shall be filed with the Secretary. Where time is mentioned, it shall be computed exclusive of the first day, and inclusive of the last, unless the last day is a Sunday, Christmas Day, Good Friday, or a Dominion or Provincial holiday, in which case the time shall be reckoned exclusive of that day also. The Board may allow amendments at any time in order to enable the application to be brought to hearing, and the real question at issue between the parties determined. No proceedings under the act shall be defeated or affected by any technical objection or any objection based upon defects in form merely. In any case not expressly provided for by the act, or in these general principles of practice, the rules of the Exchequer Court may be adopted and applied at the discretion of the Board. The costs of and incidental to any proceedings shall be in the discretion of the Board, and may be fixed at a certain sum, or may be taxed; the Board may order by whom and to whom the same are to be paid, and by whom they are to be taxed, if taxation is required.

Following is a list of the forms, etc., attached to the rules:—1. Forms of application; 2. form of answer; 3. reply; 4. fees and allowances to witnesses; 5. notice of appeal; 6. form of affidavit of service. Requirements on applications having reference to plans:—1. General location of railway; 2. to alter location of line previously sanctioned or completed; 3. plans of completed railway; 4. to take additional lands for stations, snow protection, etc.; 5. branch lines not exceeding six miles in length; 6. railway crossings and junctions; 7. highway crossings; 8. bridges, tunnels, viaducts, trestles, etc., over 18 ft. span; 9. stations, general notes.

Orders by the Railway Commissioners.

The following orders have been issued by the Board:—

Authorizing the G.T.R. to carry its second track across the tracks of the C.P.R. about a mile west of Woodstock, Ont., on providing and installing a diamond crossing, together with a derauling and interlocking plant; and affirming the agreement made between the companies by which the expenses of the maintenance shall be borne equally by them. (Oct. 12.)

Approving a by-law of the Esquimalt and Nanaimo Ry., authorizing G. L. Courtney, Traffic Manager, to prepare and issue tariffs of tolls to be charged for all traffic carried on the company's trains and steamers. (Nov. 9.)

Approving a by-law of the Toronto, Hamilton and Buffalo Ry., authorizing the General Superintendent and General Passenger and Freight Agent to prepare and issue tariffs of tolls to be charged for freight and passengers carried on its trains. (Nov. 9.)

Approving of a by-law of the Rutland Rd., authorizing the General Freight Agent and the General Passenger Agent to prepare and issue tariffs of tolls to be charged on the company's lines in Canada. (Nov. 9.)

Authorizing the C.P.R. to open for traffic the Pheasant Hills branch from mileage 136 from the junction with the main line, at Kirkilla, Man., and mileage 146.7, a distance of 10.7 miles. (Nov. 15.)

Authorizing the G.T.R. to construct a siding along Victoria St., Palmerston, Ont., a by-law permitting its construction having already been passed by the town council. (Nov. 15.)

Authorizing the Canadian Northern Ry. to cross the tracks of the C.P.R. at Emerson, Man., on installing the necessary diamond, and providing a watchman at the crossing. The crossing to be used only for 30 days from date of order. (Nov. 19.)

Sanctioning the location of the Toronto and Hamilton Ry. through a portion of the township of Saltfleet, and through the townships of Grimsby, Clinton, Cainsboro, Pelham, Thorold and Stamford, Ont., mileage 47 to 79. The plans were approved subject to terms of a resolution of the finance committee of the Hamilton, Ont., City Council, Sept. 30. (Nov. 21.)

Approving of a number of level and over and under crossings on the G.T.R., on the Port Hope and Newtonville, Ont., diversion. (Nov. 21.)

Approving a by-law of the Algoma Central and Hudson's Bay Ry., authorizing T. J. Kennedy, General Superintendent, to prepare and issue tariffs of tolls to be charged on the company's trains and steamers. (Nov. 23.)

Approving a by-law of the Manitoulin and North Shore Ry., authorizing T. J. Kennedy, General Superintendent, to prepare tariffs of tolls to be charged on the company's line. (Nov. 23.)

Authorizing the Montreal Terminal Ry. to construct a branch line along Forsyth St., between Moreau St. and the eastern limits of the city of Montreal. (Nov. 25.)

Approving of the plan for carrying the power transmission line of the Shawinigan Water and Power Co. across the line of the Montreal and Lake Maskinonge Ry., now operated by the C.P.R. (Nov. 29.)

Approving of the location of a spur line from the G.T.R. line between Toronto and Hamilton, to the premises of the Port Credit Brick Co., Port Credit, Ont. (Nov. 29.)

Approving of the carrying of the wires of the Bell Telephone Co. across the G.T.R. between Listowel and Cowanstown, Ont., about 1½ miles north-east of the former place. (Nov. 29.)

Authorizing the G.T.R. to construct a siding from Fergus, Ont., station northeasterly through the village, to the boundary line between Nichol and Garafraxa townships, with two spur lines therefrom for industrial purposes. (Nov. 30.)

Authorizing the St. Mary's and Kirkton Telephone Co. to carry four telephones wires across the track of the G.T.R., in St. Mary's Ont., and at a point on the London road in the township of Blanshard, Ont. The G.T.R. consented to the erection of the wires, and the Board directed that any disputes that may arise shall be referred to the Chief Engineer of the Board. (Nov. 30.)

Authorizing the International Traction Co. to use for a period of six months from Nov. 25, the crossing of the C.P.R. in Sault Ste. Marie, Ont., authorized by the Board's order dated Sept. 7, 1904. (Nov. 30.)

Authorizing the Morrissey, Fernie and Michel Ry. to use the crossing of the C.P.R. at Fernie, B.C., directed to be installed by the order of Oct. 11, 1904, for 30 days from

Nov. 30, and to pay for a watchman at the crossing, pending the installation of the interlocking plant ordered to be provided. (Nov. 30.)

Authorizing the Grand Valley Ry. to open for public traffic its electric railway from Paris to Galt, Ont., about 13 miles. (Nov. 30.)

Authorizing the laying of water mains under the tracks of the G.T.R. in Whitby, Ont., by the town council. (Dec. 1.)

Authorizing the Winnipeg, Selkirk and Winnipeg Ry. to cross the C.P.R. tracks on Evelyn St., Selkirk, Man. (Dec. 2.)

Approving of five level crossings of the highway by the G.T.R. between Brantford and Lynden, Ont. (Dec. 2.)

Approving of form of consignment note and bill of lading, and live stock special contract, for the Temiscouata Ry., submitted to comply with sec. 275 of the Railway Act.

Approving of the opening for public traffic of the extension of the Orford Mountain Ry. from Eastman to the north line of the township of Pottou, Que., a distance of 12 miles. (Dec. 7.)

A notice dated Nov. 25, and published officially Dec. 3, states that the forms of bills of lading and other traffic forms, filed in compliance with sub-sections 1 and 2, sec. 275 of the Railway Act, by the Canada Atlantic Ry.; Dominion Atlantic Ry.; Michigan Central Rd.; St. Lawrence and Adirondack Ry.; Ottawa and New York Ry.; Quebec Central Ry.; Toronto, Hamilton and Buffalo Ry.; and the British Yukon Ry., as well as the additional forms filed by the G.T.R., Pere Marquette Rd., C.P.R., and Canadian Northern Ry., since the order of approval of Oct. 17, have been approved and are authorized to be used until the Board shall otherwise order.

A large wall map of Quebec on a scale of 15 ft. to an inch, has been published by the Copp, Clark Co., Toronto. It has been compiled from the latest official sources of information, and in respect to railway lines, etc., is well up to date, and, though not strictly accurate, is more correct than the majority of maps issued. The county and townships boundaries are also shown, together with the whole of the undeveloped territory stretching from James Bay along the Ungava boundary to the Atlantic shore at Hamilton Inlet. The whole of New Brunswick, Prince Edward Island, and portions of Nova Scotia and Newfoundland are also shown on the same scale, the railway lines, rivers, and principal towns being shown, which makes the map of additional value. The usual plan is to make any area outside what is the main territory to be mapped, white, and without any features marked in.

At a recent meeting of the Conference Committee of the Western Trunk Freight Committee and the Central Freight and Trunk Line Associations, an understanding on the west-bound rate situation was reached. Representatives of the Western and Gulf lines were insistent that the G.T.R. should become a member of the Committee, but the general opinion was that there did not appear to be any real need of it. The road has been working in harmony with the Committee, and there was no justifiable occasion to either accuse or suspect it of improprieties. The C.P.R., its direct competitor, had no grievance to offer in this connection, and had not discovered any indication of disturbance due to G.T.R. methods or policy with regard to import business. It was conceded that the Canada Atlantic had not always kept in line, but as that road is to be added to the G.T.R., it did not seem likely that any further trouble need be anticipated from it.

The Toronto and York Radial Ry. Co. now operates the Toronto and Mimico Ry., which is designated as the Mimico Division;

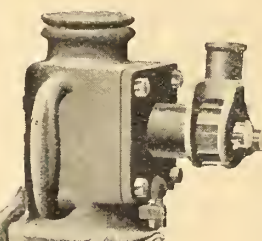
the Metropolitan Ry., as the Metropolitan Division; and the Toronto and Scarboro Ry. as the Scarboro Division.

This LITTLE NORTON JACK

Isn't much more than
a handful, but it will
lift 15 tons and is the

Standard Journal Jack

of the leading Railroads.



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expense.

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NOTICE.—The Canadian Pacific Railway Company will apply to the Parliament of Canada, at its next session, for an act extending the time within which it may complete the lines of railway authorized by 63-64 Victoria, chapter 55, namely:—

A railway from a point on the Deloraine extension of the Souris branch of the company's railway at or near Deloraine; thence south-westerly to a point in township one or two and thence westerly for a distance of one hundred miles.

A railway from a point at or near Napinka on the company's Souris branch; thence westerly to a junction with the north-west extension of the Souris branch.

A railway from a point on the Manitoba South-Western Colonization Railway between Manitou and Pilot Mound; thence in a general southerly direction to a point at or near the International boundary.

A railway from a point on the company's Souris branch between Lauder and Menteith; thence easterly and north-easterly to a point between Glenboro and Treesbank on the Glenboro extension of the said Souris branch.

A railway from a point at or near Osborne on the company's Pembina Mountain branch; thence westerly and south-westerly to some point on the line of the Manitoba South-Western Colonization Railway between Cartwright and Boissevain.

A railway from a point at or near West Selkirk; thence in a northerly direction about sixty miles through ranges three or four east to some point on the west shore of Lake Winnipeg; thence in a direct line north-westerly to a point on the Little Saskatchewan River distant not more than six miles from Lake Winnipeg.

CHARLES DRINKWATER,
Secretary.

Montreal, 7th December, 1904.

NOTICE is hereby given that the Great Northern Railway of Canada will apply to the Parliament of Canada, at its next session, for an act empowering the company to lease, purchase, or otherwise acquire the lines of The Chateauguay and Northern Railway Company and the Quebec, New Brunswick and Nova Scotia Railway Company, or any of them, and to amalgamate with the said companies or either of them; also empowering the company to lease to The Canadian Northern Railway Company or The James Bay Railway Company, its lines and leased lines or any of them, and to give the said companies or either of them running powers thereover; also confirming an issue of consolidated bonds of the company. Also empowering the company to construct a line from a point on its main line at or near Grandmere to its terminals in Quebec City, with a branch to the Quebec bridge.

Z. A. LASH,

Solicitor for applicant.

Toronto, 8th December, 1904.



THORN CEMENT COMPANY

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Lehigh Brand Portland Cement
Best Known in Canada

6 Mills

4,000,000 Barrels Annually

Prompt Shipment

Never Failing Quality

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The Future of the Intercolonial Railway.

Under this heading the Montreal Herald, a leading Government organ, recently published the article quoted below. From the tenor of the article it looks very much as if there was a desire on the part of the Government to lease the Intercolonial to one of the great Canadian railways, and before committing itself definitely to find out how such a proposition would be regarded by the country. The complete article follows:—

"Opposition journals are pointing out that the results of the operation of the Intercolonial Ry. during the past fiscal year are such as to prove that the system on which the road has been administered, under both Liberals and Conservatives, is fore-doomed to give us wasteful and costly results. There is too much truth in the charge. The losses on the railway last year were in the neighborhood of \$900,000, and the indications are that the loss on operations during the current year will be little, if any, less. When to these large deficits are added interest on the moneys invested in the road—some \$70,856,370—and the yearly expenditure on capital account we have a total loss not far from the enormous figure of \$5,000,000.

"It goes without saying that a radical and permanent remedy for such a condition should be earnestly sought. Mr. Blair, when he took charge of the Department of Railways, made a determined effort to drag the administration of the road away from the benumbing effects of political interference. He succeeded only in part, and it was idle to deny that to-day much of the loss on the I.C.R. is directly to be attributed to the paralysis of the energies of the management caused by sinister influences that do not bow before business considerations. It is true that the road is peculiarly unfortunate, from the standpoint of profit-making, in that it comes in competition, at many important points, with rates offered by water-going vessels. From Sydney, Halifax, St. John, and from minor ports, its freight rates are kept abnormally low through this competition. But making all allowances for this and other natural handicaps, the fact remains that the management have not the free hand that is necessary if they are to give a service at all approximating that of company-owned roads.

"The country at large would certainly welcome any change which would result in the present huge annual drain being stopped, the only section from which objection might come being the Maritime Provinces. But the sensible electors down by the sea are no more inclined to tolerate waste of public money than are their fellows elsewhere. Legislation taking the I.C.R. out of politics, and placing its operation on a business basis, might create a feeling of dissatisfaction in some circles in the Maritime Provinces for a time, but improved business methods would quickly reconcile the electorate to the new order of things. Good politics, as well as good business, impels to a radical change in the method of operating the road, as few things would redound more to the credit of the present Government as a business administration, than the placing of the I.C.R. on a new and permanent business foundation. To put an end to deficits, while preserving the high efficiency of the road, is a task well worthy the attention of the Government.

"If we grant that the experience of over thirty years, under many administrations of both political parties, has demonstrated the practical impossibility of conducting the I.C.R. in a business-like manner, the question arises, What system will ensure more satisfactory results? Two methods at once suggest themselves—operation by a non-partisan, independent commission, or by a leasing company. The objection to a commission is that the experience of democratically-governed countries does not prove that it affords

certain escape from political interference. Back of any commission is the Government that creates it, and that must provide the means to sustain it. The wishes and interests of such a Government, or of the individuals who compose it, cannot be wholly ignored. In regard to traffic arrangements with other roads, and in matters of railway policy respecting the many enterprises now carried on by progressive railway managers, it is inevitable that the interests of the Government of the day should be considered. In a word, the commission cannot play the autocrat, and it is a fair question if a railway can be successfully managed on any other than an autocratic basis. Company operation, on the other hand, gives this much-to-be-desired—one-man-power, with all that it implies in concentration of effort, in liberty of action and in firmness of policy. State ownership of the I.C.R. should never be surrendered, but state operation is an entirely different thing. There is undoubtedly throughout the Dominion a current of opinion in favor of the ownership by the state of municipal and national utilities, but combined with private operation. This principle has found acceptance in Parliament in connection with the Government Transcontinental Ry. Why not in relation to the I.C.R.? With rates controlled by the Railway Commission, and with the certainty of the lease falling-in at a specified time, what risk would the country run that would not be small compared with the danger now annually incurred of a heavy drain upon the national exchequer to keep the wheels of the I.C.R. turning?"

The Toronto-Sudbury Lines.—Press reports recently stated that the C.P.R. and the James Bay Ry. companies had reached an agreement to have the case as to whether the C.P.R. has the right to construct a line from Sudbury to Toronto without securing special legislation from Parliament, tried before the Supreme Court of Canada, without first going to the preliminary courts. The only portion of the statement made that is correct is that the question is to be settled by the Supreme Court of Canada. There is no agreement whatever between the C.P.R. and the James Bay Ry. companies in regard to the matter. The position of affairs is that when the C.P.R. applied to the Board of Railway Commissioners for its approval to some deviations in the route of the line, the James Bay Ry. Co. objected, on the ground that the C.P.R. company's right to build branch lines had expired, and, moreover, that its charter did not give power to build branch lines in Ontario. These questions were very fully argued, and judgment was reserved. An order was subsequently made by the Board, under sec. 43 of the Railway Act of 1903, directing a reference to the Supreme Court, and the C.P.R. legal department is preparing the form of reference, which will be submitted to the James Bay Ry. Co. solicitor for approval, when it will be dealt with by the Railway Commissioners. The case will then be sent to the Supreme Court, and it is hoped to have the matter disposed of at the February sittings.

The directors of the Dominion Express Co. have decided to establish a pension fund, and a committee of the board has been appointed to work out the details.

The annual meetings of the Niagara Frontier Summer Rate Committee, and of the Great Lakes and St. Lawrence River Rate Committee, will be held at the Transportation Club's rooms, Lafayette Hotel, Buffalo, N.Y., Jan. 19, the first at 11 a.m., and the second at 2 p.m. The rate clerks will meet at the same place Jan. 10, to prepare figures. The annual meeting of the International Water Lines Passenger Association will be held at the same place, Jan. 20, at 10 a.m.

January Birthdays.

Many happy returns of the day to—

G. Bazzard, ex-Freight and Passenger Agent, Delaware, Lackawanna and Western Rd., at Toronto, now of Hamilton, Ont., born at Westhild Court, Herefordshire, Eng., Jan. 3, 1838.

A. H. Bears, Master of Bridges and Buildings, C.P.R., at Winnipeg, Man., born at Charlottetown, P.E.I., Jan. 6, 1857.

R. H. Bell, Travelling Freight and Passenger Agent, Canadian Northern Ry., at Montreal, born at Toronto, Jan. 13, 1865.

G. M. Bosworth, 4th Vice-President C.P.R. at Montreal, born at Ogdensburg, N.Y., Jan. 27, 1858.

G. McL. Brown, Superintendent of C.P.R. Dining, Sleeping and Parlor Cars and Hotels, at Montreal, born at Hamilton, Ont., Jan. 29, 1856.

P. W. Brown, Purchasing Agent, Duluth, South Shore and Atlantic Ry., and Mineral Range Ry., at Marquette, Mich., born at Uxbridge, Worcester Co., Mass., Jan. 18, 1845.

E. L. Chudleigh, Chief Train Dispatcher C.P.R., at Cranbrook, B.C., born at Clinton, Ont., Jan. 3, 1873.

N. S. Dunlop, Tax Commissioner C.P.R., at Montreal, born near Alnonte, Ont., Jan. 17, 1861.

Sir Sandford Fleming, K.C.M.G., Director C.P.R., born at Kirkcaldy, Scotland, Jan. 7, 1827.

T. A. Foque, Mechanical Superintendent Minneapolis, St. Paul and Sault Ste. Marie Ry., at Minneapolis, Minn., born at Boston, Mass., Jan. 14, 1866.

H. V. Harris, General Manager Midland Ry. of Nova Scotia, at Windsor, N.S., born at Devonport, Devonshire, Eng., Jan. 16, 1857.

W. J. Hunter, Commercial Agent, G.T.R., at Winnipeg, born in Toronto, Jan. 10, 1864.

A. Lichtenhein, Galena Signal Oil Co., at New York, born there Jan. 15, 1855.

W. Phillips, General Eastern Agent Canadian Northern Ry., at Toronto, born at Toronto, Jan. 31, 1870.

J. Pullen, General Freight Agent G.T.R., at Montreal, born at Shepton Mallet, Somersetshire, Eng., Jan. 23, 1863.

S. J. Sharp, Western Passenger Agent C.P.R. Atlantic Steamship Lines at Toronto, born at London, Ont., Jan. 21, 1860.

J. R. Steele, Freight Claims Auditor C.P.R., at Montreal, born at St. John's, Newfoundland, Jan. 14, 1856.

W. A. Trueman, Director, Secretary and Treasurer Albert Southern Ry., at Albert, N.B., born at Wallace, N.S., Jan. 29, 1849.

S. G. Wagstaff, Commercial Agent, G.T.R., at Toledo, Ohio, born at Hamilton, Ont., Jan. 6, 1866.

F. J. Watson, Division Freight Agent G.T.R., at Montreal, born at Toronto, Jan. 12, 1866.

G. H. Webster, Division Engineer C.P.R., at Vancouver, B.C., born at Creemore, Ont., Jan. 31, 1857.

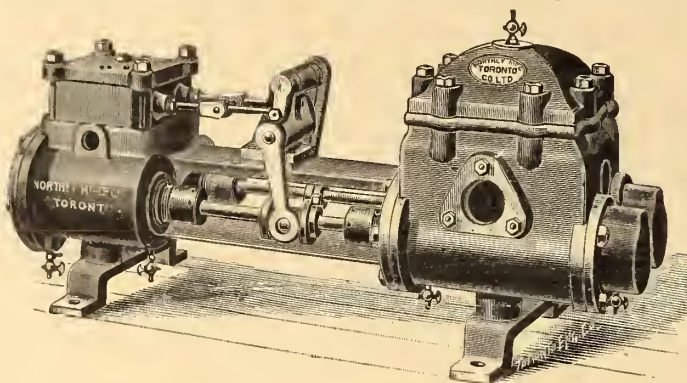
T. H. White, Chief Engineer Halifax and South-Western Ry., at Bridgewater, N.S., born at St. Thomas, Ont., Jan. 27, 1848.

The Canada Car Co., Ltd., Montreal, which was recently incorporated, has been organized with the following board:—President, W. P. Coleman; Vice-President, Sir H. M. Allan, Montreal; other directors, H. L. Holt, E. L. Pease, Montreal; F. Nicholls, Toronto; F. N. Hoffstot, A. H. Larkin, New York. Contracts have been let for the buildings, including about 3,000 tons structural steel, from the Dominion Bridge Co., for the electrical equipment with the Canadian General Electric Co. for the boilers with the Babcock & Wilcox, Ltd., and for the air compressors the Curtiss steam turbine is to be used. Up to date the contracts let total about \$350,000. Bids will be invited shortly for the shop machinery.

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Head Office and Works : TORONTO, ONT.

Manufacturers of
Pumps for all duties
requiring the delivery
of liquids under
heavy pressure. . .



For Boiler Feeding,
Mills, Factories, Hy-
draulic Elevators
and all power pur-
poses.

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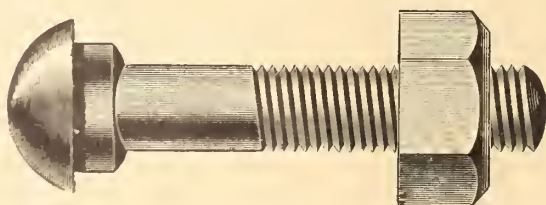
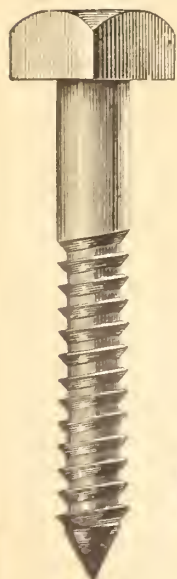
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Boiler and
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DEVICES IN EVERY ROOM

Completely Remodeled and Redecorated
Refurnished throughout in solid Mahogany
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Take nearest car at any Railroad or Steamboat
Terminal, they all pass or transfer
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Within easy walking distance of all Theatres
and Department Stores

Restaurant noted for Excellent Cooking, Efficient
Service and Moderate Charges

Rooms (with use of bath) \$1.50 per day up
" " private " 2.00 " "
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W. JOHNSON QUINN

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

The Atlantic, Quebec and Western Ry. Co. will apply at next session of the Dominion Parliament for an act extending for a year the period within which it has to construct 10 miles of its projected line from Gaspé towards Causapscal, Que., and 10 miles from Pasbépie towards Gaspé, Que. It also seeks the repeal of the clause in the act providing that the two lines of railway shall be commenced and constructed concurrently. (Dec., 1904, pg. 421.)

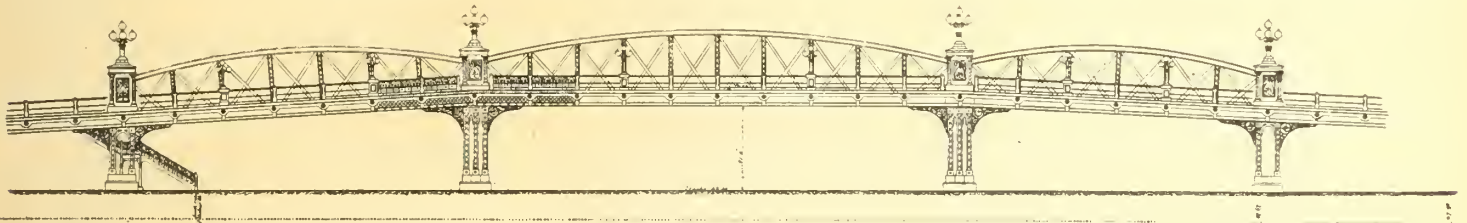
Beersville Coal and Ry. Co.—E. V. John-

L'Amable station, on the Central Ontario Ry., to Barry's Bay, on the Canada Atlantic Ry., about 30 miles. The route will be through the Mineral Range Iron Co.'s mines and lands, McArthur's mill, Fort Stewart, Craigmount and Combermere to Barry's Bay, through the townships of Mayo, Carlow, Raglan, Radcliffe and Sherwood, in Hastings and Renfrew counties. The line will be built for general traffic, as well as for the development of the mineral lands through which it will pass. A certain amount of work of a preliminary nature has been done, and we are advised that construction work will be taken up again in the spring, and pushed vigorously to completion. The B. and B.B. Ry. is promoted by the Mineral Range Iron Min-

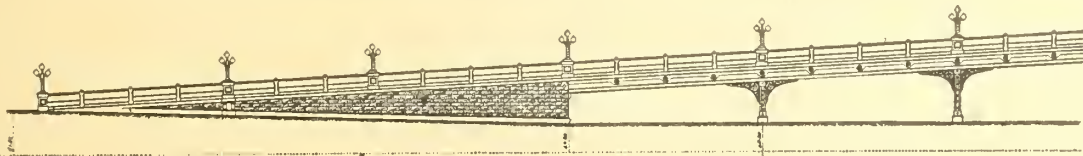
Bracebridge and Trading Lake Ry.—A meeting of shareholders was called for Dec. 20, for the purpose of ratifying an agreement as to the transfer of stock and assets to F. C. Norris, and other business in connection therewith. (Nov., 1904, pg. 405.)

Brantford and Lake Erie Electric Ry.—A by-law was passed by the Brantford, Ont., township council, Dec. 8, granting the company a franchise over the roads in the township. (Dec., 1904, pg. 421.)

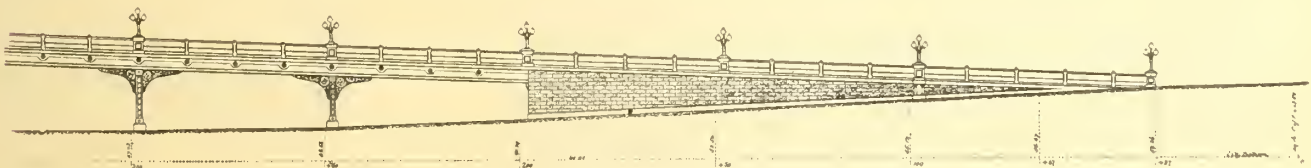
British Columbia Electric Ry.—The contract for the construction of the additions to the buildings at the corner of Carroll and Hastings streets has been let to Crowe and Wilson. The lines in Vancouver and New Westminster, B.C., and the entire lighting



PROPOSED BRIDGE OVER THE RAILWAY TRACKS FOOT OF YONGE STREET, TORONTO—CENTRE SPANS.



PROPOSED YONGE STREET BRIDGE—NORTH APPROACH.



PROPOSED YONGE STREET BRIDGE—SOUTH APPROACH.

son, an inspecting engineer of the Department of Railways, went over the line Dec. 3, in company with Dr. M. F. Keith, the manager. (Nov., 1904, pg. 405.)

Bessemer and Barry's Bay Ry.—The line projected by this company will extend from

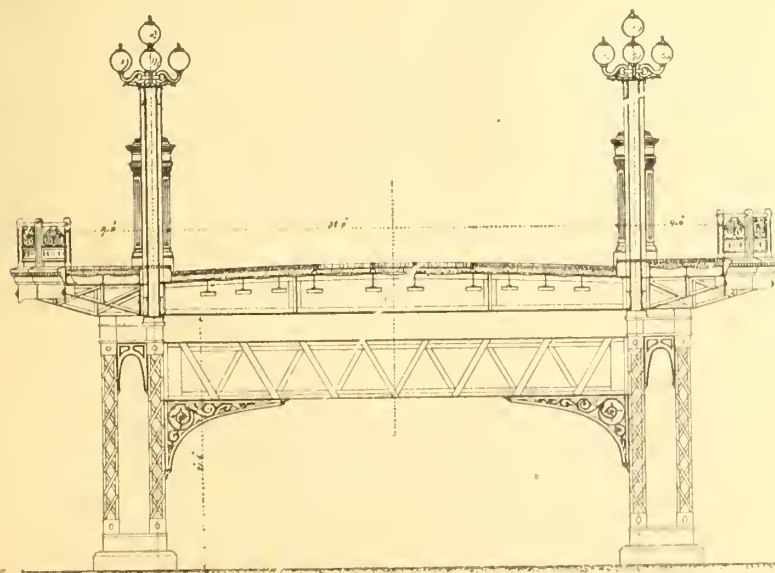
ing Co. (Ltd.), which has its head offices in Windsor, Ont. The chief officers of the company are: President, E. W. Voigt; Treasurer and General Manager, H. C. Farnum; Secretary, H. L. Bingham, who are located at Detroit, Mich. (Dec., 1904, pg. 421.)

system of the two cities are now being operated by power developed from the plant of the Vancouver Power Co., which is constructing a large plant at Coquitlam Lake and Trout Lake. The complete power system is expected to be in operation in the spring. (Dec., 1904, pg. 421.)

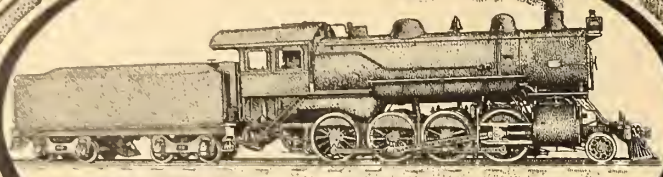
Calgary, Red Deer and Battleford Ry.—Application will be made next session of the Dominion Parliament for an act incorporating a company to construct a railway from Calgary, Alta., to Battleford, Sask. McGivern and Heydon, Ottawa, are solicitors for the promoters.

Canada and Michigan Bridge and Tunnel Co.—Application will be made next session of the Dominion Parliament for the passing of an Act extending the time for the commencement and completion of the works authorized, viz., a railway bridge and tunnel, or either of them, over or under the Detroit river, to connect railway lines in Michigan and Canada. The company is one of the promoters of the Michigan Central Rd., which practically owns the Canada Southern Ry., whose lines would be connected by the construction of such a bridge or tunnel.

Canada Atlantic Ry.—The Mayor of Ottawa recently had an interview with C. M. Hays, 2nd Vice-President, and General Manager G.T.R., respecting the building of the central station at Ottawa. Mr. Hays stated that as soon as the C.A.R. was taken over by the G.T.R., he would discuss the whole situation



PROPOSED YONGE STREET BRIDGE—CROSS SECTION AT CENTRE.



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FOR
COMPLETE POWER PLANTS**

**OUR HEATING SYSTEM
IS ESPECIALLY DESIGNED FOR ROUNDHOUSES, MACHINE
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**OUR
AUTOMATIC LOCOMOTIVE BOILER WASHER**
FOR CHANGING WATER, WASHING AND FILLING LOCOMOTIVES
WE USE THE WASTE STEAM AND WATER
FIVE TO SEVEN HOURS SAVED OVER PRESENT METHODS

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WE ALSO MANUFACTURE
ENGINES, BOILERS, PUMPS, ETC.
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ERIE HEATING COMPANY
225 RAILWAY EXCHANGE
CHICAGO.

NIAGARA NAVIGATION COMPANY

Notice is hereby given that a Dividend of four per cent.—being at the rate of eight per cent. for the year—has been declared upon the Capital Stock of this Company, and the same will be payable on the 3rd of January, 1905.

B. W. FOLGER, Manager.
Toronto, December 6th, 1904.

NOTICE.—The Ottawa, Northern and Western Railway Company will apply to the Parliament of Canada, at its next session, for an act extending the times within which the company may commence and complete the railway authorized by section 1 of chapter 72 of the Statutes of 1900, and the extensions and branches authorized by section 1 of chapter 84 of the Statutes of 1899.

H. CAMPBELL OSWALD,
Secretary.

Montreal, 29th November, 1904.

NOTICE.—The Columbia and Western Railway Company will apply to the Parliament of Canada, at its next session, for an act extending the time within which the company may construct and complete the railways and branches which it has been authorized to construct.

H. CAMPBELL OSWALD,
Secretary.

Montreal, 29th November, 1904.

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about the station, and had no doubt that a satisfactory arrangement would be reached. (July, 1904, pg. 231.)

Canada-Middlesex Ry.—Application will be made next session of the Dominion Parliament for the incorporation of a company with this title to construct a line from the Niagara River to London, Ont., with power to acquire other railways. Chrysler and Bethune, Ottawa, Ont., are acting for the promoters. A Brantford, Ont., press report states that the line is being promoted in the interests of the Pere Marquette Rd.

Canada Southern Bridge Co.—Application will be made next session of the Dominion Parliament for an act extending the time for the completion of its undertaking.

Canada Southern Ry.—At its next session the Dominion Parliament will be asked to pass an act extending the time for the completion of the unconstructed lines or branches authorized by this company's several acts, and also giving power to lend its credit to, and guarantee the securities of companies with whose works its railway connects.

The Cape Breton Coal, Iron and Ry. Co. has purchased two water front properties at Sydney, N.S., for the purpose of constructing a shipping pier there. The company's railway from Cochrane's Lake, six miles from Sydney, is under construction. A press report states that Sir C. Rivers Wilson, President G.T.R., has purchased a large, if not the controlling, interest in the company. (Dec., 1904, pg. 421.)

Central Counties Ry.—The Dominion Parliament will be asked next session for an act amending the act incorporating this company, and authorizing the construction of a bridge with the necessary connections and approaches from a point on the line which the company is authorized to construct near Point Fortune, on the south side of the Ottawa River, to near Carillon, Que., on the north side of the river; and a railway thence to Montreal; also for an extension of time for the construction of its lines; an increase of its borrowing powers in respect of uncompleted portions of its line, and power to amalgamate with other railway companies. The C.C. Ry. extends from Glen Robertson on the Canada Atlantic Ry. to Hawkesbury, Ont., 21 miles, and from South Indian, on the C.A. Ry., to Rockland, Ont., 16 miles, which lines are leased to the Canada Atlantic Ry.

Chateauguay and Northern Ry.—During the past year the line from Montreal to Joliette, Que., 36 miles, has been re-ballasted, and a branch from L'Epiphanie to St. Jacques L'Achigan, Que., a distance of eight miles, has been partially constructed. In Montreal the terminal buildings on St. Catherine St. have been considerably improved and a new turntable and roundhouse erected. (See also Canadian Northern Ry., pg. 27.)

Crow's Nest Southern Ry.—The annual statement of construction of the Great Northern Ry. (U.S.) for the year ended June 30, 1904, recently issued, states that an extension from Swinton to the Coal Creek mines, at Fernie, B.C., had been completed, and that an extension from Fernie to Michel would probably be undertaken shortly. (Dec., 1904, pg. 421.)

Detroit River Bridge.—The question of bridging the Detroit river between Ontario and Michigan, at or near Windsor, Ont., has been again discussed by C. M. Hays, 2nd Vice-President and General Manager G.T.R., and the authorities of the Michigan Central Rd., but nothing has been announced as to any decision being reached. (June, 1904, pg. 183.)

Fraser River Tramway.—The Langley, B.C. town council has passed a by-law granting the Chilliwack Power and Light Co. an exclusive franchise for 20 years for tramway construction within the bounds of the municipality. The company must build its own

bridges, and expend \$50,000 on construction within two years. A by-law has been passed in Chilliwack giving a franchise there.

Georgian Bay and Seaboard Ry.—Application will be made next session of the Dominion Parliament for the passing of an act authorizing the construction of a railway from Georgian Bay, between Point Severn and Penetanguishene, south-easterly through the counties of Simcoe, Ontario, Victoria, Peterboro, Hastings, Lennox, and Addington, Frontenac and Lanark, or any of them, to a junction with the Ontario and Quebec Ry., between Cavanville and Maberly, Ont., with power to construct branch lines, etc. A. T. Thompson, solicitor, Cayuga, Ont., is acting for the applicants.

The G.T. Pacific Ry. has filed plans with the Department of Railways showing the lands which it proposes to acquire by expropriation, for terminal purposes, on the Pacific coast, and on Lake Superior at Port Arthur and Fort William. The plans filed for the Pacific coast terminus, the Globe's Ottawa correspondent says, will enable the Government to make a choice between Kaien Island and Port Simpson. Kaien Island is at the entrance of Tuck's Inlet, and forms a part of the Tsimpian Indian Reserve, and contains altogether about 50,000 acres. It is situated equidistant from Port Simpson and the Skeena River, and Tuck's Inlet is an arm of the sea larger than Burrard's Inlet. Port Simpson is situated 14 miles north from Kaien Island. C. M. Hays, when interviewed in regard to the matter, said that the filing of the plans did not signify that any decision had been reached in regard to the terminal. It was necessary to set before the Government the land that would be necessary at any probable terminus, so that when a decision was made by the company the consent of the Government would be already anticipated.

The plans filed for the terminals on Lake Superior show a line running into Fort William and another into Port Arthur, the one to the west of the C.P.R. terminals, and the other east of the Canadian Northern Ry. terminals. The property on the lake front south of the Kaministiquia River, known as the Mission, is asked for at Fort William; and in Port Arthur an area of 548 acres lying between the C.P.R. and the lake front from Stephen St. eastward for 10,000 ft. It includes property within the municipal bounds of Port Arthur, and runs into the adjoining township. Most of the land at Port Arthur is private property, and the expropriation proceedings will come before the Railway Commissioners.

Grand Valley Ry. (Electric).—The extension of the line from Paris to Galt, Ont., which has been under construction during the year, has been completed, and has been placed in operation. The line, which now extends from Brantford to Galt, via Paris and St. George, is about 20 miles long; the newly completed portion is about 13 miles. The line was constructed by the Von Echa Co., Woodstock, Ont., which also constructed the Woodstock, Thames Valley and Ingersoll Ry. (Electric), and took over the Brantford Street Ry. The company has been operating the line from Brantford to Paris on Sundays as well as week days, and started to do the same over the extension. Application has been made at the instance of a number of residents in Galt for an injunction to prevent the running of cars on Sundays within the limits of the city. (Dec., 1904, pg. 421.)

Great Northern Ry. of Canada. See Canadian Northern Ry., pg. 27.

Hamilton, Ancaster and Brantford Ry. (Electric).—A by-law has been passed by the Brantford, Ont., township council granting a franchise for the construction of an electric railway through the township. C. D.

Haines, a U.S. contractor and promoter of electric railways, who appeared before the council in respect of the matter, stated that it was expected to have the line completed between Brantford and Hamilton by July. (Dec., 1904, pg. 425.)

Hamilton Radial Ry.—The extension of this line from its present terminus near Burlington to Oakville, Ont., will be constructed on an acquired right of way, adjoining and parallel to the road allowance between the 3rd and 4th concessions south of Dundas St. to the township of Nelson to lot 21 in the township of Trafalgar. At this point the line leaves the parallel course with the roadway, and passes through private property to the southerly limit of Oakville, thence along Rebecca and Randal streets to the northerly limits of the town, where connection will be made with the extension of the Toronto and Mimico Ry. The distance from the present terminus to Oakville is 10 miles. The route described is the most direct, running through the centre of Oakville. The alignment and gradients have been established with a view to advantageously meet the requirements of a fast electric passenger service. The sharpest curve has a radius of 1,146 ft. and the ruling gradient is 1%, aggregating about 5% of the length of line. The road bed will be constructed to standard widths, for double track, the grading will be light, and there will be no heavy cuttings. All streams having openings from 12 to 50 ft. will be provided with steel beams and girders, deck spans on concrete abutments. The crossings of the Twelve Mile Creek, at Bronte, and Sixteen Mile Creek, Oakville, will be steel trestles, of braced towers carrying alternate girder spans with a trussed span over the creeks, and the sub-structures will be of concrete upon pile foundations. The dimensions of the bridges, in the order given, will be 377 ft. long and 45 ft. above high water level of Lake Ontario and 63.1½ ft. and 41 ft. respectively. The piling for these bridges has been completed, but the concrete work will be deferred until spring. All abutments and sub-structures will be built for double track, but steel superstructure for a single track only will be erected at first. This remark also applies to track construction generally, which the company purposes doing itself. The contract for grading, clearing, fencing, foundations and concrete work has been awarded to F. Dickenson, Hamilton. A contract has also been awarded for the bridge superstructures. It is the intention of the company to vigorously push on construction as early in the spring as possible for completion by July. T. E. Hillman, Hamilton, is the engineer. (Sept., 1904, pg. 313.)

Intercolonial Ry. Tenders are under consideration for the repairs of about 700 ft. of cribwork between Levis and Point Levis, Que.

The contract for the erection of a roundhouse at Truro, N.S., has been let to Rhodes, Curry & Co., Amherst, N.S.

The double track work between Windsor Jet. and Bedford, N.S., about five miles, was expected to be completed by the end of Dec. (Dec., 1904, pg. 426.)

International Ry. of New Brunswick.—Construction proceeded during the past summer and fall on this line from near Campbellton, N.B., to the St. John River. The section of 20 miles to Upsalquitch River was expected to be completed by Dec. 31. The concrete piers for the bridge across the Upsalquitch River have been completed, and the Dominion Bridge Co. expected to have the superstructure finished by the end of Dec. The bridge is 225 ft. long. Clearing and grading work has been started on the third 10 miles. T. Malcolm is the contractor. (Mar., 1904, pg. 77.)

Iroquoia, Bancroft and Ottawa Ry.—See Canadian Northern Ry., pg. 27.

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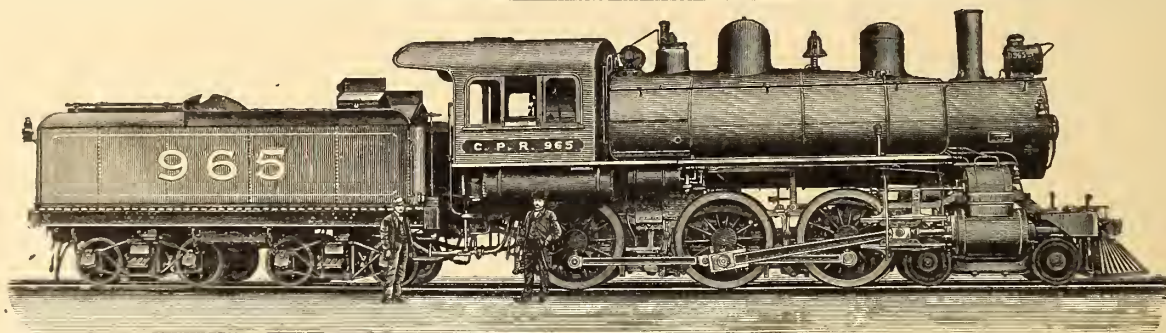
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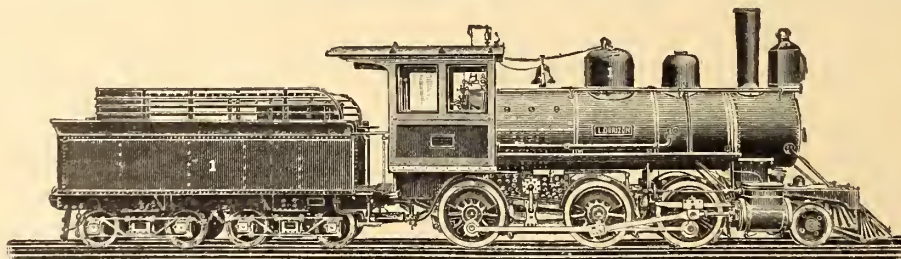
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James Bay Ry.—Mayor Johnson of Parry Sound, Ont., stated recently in Toronto that work was being rapidly pushed on the Parry Sound-Toronto line, and that there were on the Parry Sound-Washago section about 2,000 men engaged. (Dec., 1904, pg. 428.)

See also Canadian Northern Ry., pg. 27.

Klondike Mines Ry.—Application will be made next session of the Dominion Parliament for an act authorizing the company to start its projected line at Dawson; to construct a bridge over the Klondike River there; and to extend the time for the commencement and completion of its lines from Klondike City to Stewart River.

The Dawson, Grand Forks and Stewart River Ry. Corporation (Ltd.) was registered in London, Eng., Nov. 1, with a capital of £10,000 in £1 shares, the objects of the company being stated to be: "To construct and equip railways, tramways, roads or ships in any part of the world; to adopt an agreement with the Klondike Mines Ry. Co. for the construction and equipment of a railway from Dawson City to Grand Forks, Yukon, and all or any further sections of the railway authorized, or to be authorized, to be constructed by the Klondike Mines Ry. Co.; to acquire shares or securities in any railway, shipping or transportation company; to contract for public or other works; to act as managers for the Klondike Mines Ry. Co., or any other railway, tramway, shipping, or transport company, etc." (Mar., 1904, pg. 79.)

Kootenay Central Ry.—The surveyors engaged on the location survey of this line from Golden to Fort Steele, B.C., have completed their work in the vicinity of Golden, and recently moved their camp to a point 12 miles up the Government road. (Dec., 1904, pg. 429.)

Levis County Ry. (Electric).—The steel bridge over the Etchemin River, connecting the company's lines in Levis and St. Romuld, Que., has been completed, and was on Dec. 4 inspected and approved by L. Vallee, an inspecting engineer of the Department of Railways. A car service was placed in operation by Dec. 31. (Dec., 1904, pg. 429.)

London and Port Stanley Ry.—The Pere Marquette Rd. Co., lessees of the L. and P.S. Ry., has advised the London, Ont., city council that the repairs to the roundhouse and offices in London have been completed, and the stations at St. Thomas and Glenworth completed. The repairs to bridges, the company says, will have to be considered when the question of the extension of the lease is again taken up. Land for extra siding accommodation is being acquired by the P.M. Rd., in London, in connection with the line. (Dec., 1904, pg. 429.)

London and St. Clair Ry.—Official notice was given Dec. 3rd, that the Ontario and Quebec Ry. would apply next session of the Dominion Parliament for authority to construct a branch line from its main line near London, Ont., to the St. Clair River, between Sarnia and Lake St. Clair. The notice was not repeated, but on Dec. 10 a notice appeared that application would be made for the incorporation of a company with the title of the London and St. Clair Ry. Co., to construct such a line. As the Ontario and Quebec Ry. is part of the C.P.R. system, consequently the L. and St. C. Ry. Co. would appear to be projected in the C.P.R. interest.

Manitoba Boundary to Hudson's Bay.—Hon. R. P. Roblin, Premier of Manitoba, in a recent speech referred to the Dominion Government project to construct a railway from Winnipeg easterly to Moncton, N.B., and said: "If the Dominion of Canada can build through such a territory as that, the Northwest Territories and Manitoba can join forces and construct the 250 miles of road from the northern portion of the Canadian Northern Ry. to Hudson's Bay, and I think that is one

of the next great problems that the people of Manitoba and the Northwest Territories have to consider, namely, to secure the construction of that 300 miles of railway, and thus give the people the advantages and facilities of a seaport within a day's journey or within 36 hours of the centre of the great fertile district north and west."

The Maritime Coal and Ry. Co.'s collieries have been sufficiently developed to turn out 200 tons of coal a day, and it is hoped to increase the output to about 500 tons a day. The company has power to construct a railway from its mines, which are situated near Chignecto, N.S., to Northumberland Strait. Preliminary surveys have been made, but nothing definite has been settled in regard to construction. D. Mitchell is manager. (Mar., 1904, pg. 79.)

Midway and Vernon Ry.—The New York syndicate which has been looking over the route of this projected railway in British Columbia has had engineers and financial men going through the country, and it is reported that construction will be started early in the spring. (July, 1904, pg. 233.)

Montreal Street Ry.—An extension of a mile has been completed on Mount Royal Avenue, east, in the municipality of Delorimier, Que.

Muskoka.—Application will be made next session of the Dominion Parliament for an act incorporating a company to construct a railway from the James Bay Ry., or the C.P.R., or both, in the township of Wood, to the Lake of Bays, either in Maclean or Ridout township, Muskoka district, Ont. F. Hornsby, Gravenhurst, Ont., is solicitor for the promoters.

Niagara, Queenston and St. Catharines Electric Ry.—In connection with the construction of this line, the Imperial Construction Co. (Ltd.) has been incorporated under the Ontario Companies' Act, with a capital of \$40,000, and offices at Toronto, to carry on a general contracting business and to assist in the financing of other companies. The provisional directors are:—H. W. Middlemist, C.E., H. L. Dunn, A. D. Crooks, J. W. McDonald, and G. J. Valin, of Toronto. Mr. Dunn is one of the directors and H. W. Middlemist is Chief Engineer of the N., Q. and St. C. Ry. Actual construction will not be undertaken until the spring. (Dec., 1904, pg. 429.)

Nicola, Kamloops and Similkameen Ry.—Application will be made next session of the Dominion Parliament authorizing the construction of a line from Osoyoos Lake to or near Grand Forks, B.C., in extension of the already authorized line; authorizing the junction of such line with the Vancouver, Victoria and Eastern Ry. at Grand Forks, and the Columbia and Western Ry., near Midway; and granting an extension of time for the commencement and completion of the lines. (Aug., 1904, pg. 279.)

The Niagara-Welland Power Co., which is authorized to develop power on the Niagara River, Ont., will apply next session of the Dominion Parliament for permission to construct a tramway along its right of way, and for an extension of time within which its power line and other works may be constructed.

Orford Mountain Ry.—An extension from the present terminus at Eastman, Que., southerly to Potton Centre on the northerly line of the township of Potton, a distance of about 12 miles, has been completed, and the Railway Commissioners made an order Dec. 7, authorizing its opening for traffic. This extension gives the company 39 miles of line, and opens up a good lumber country. The company proposes to continue this extension in course of time to near Maisonneville, Que., where connection will be made with the C.P.R. Grading has also been in progress on an ex-

tension of the line from its northern terminus at Kingsbury to Windsor Mills, and some track is reported to have been laid. (Dec., 1904, pg. 429.)

Ontario Electric Ry.—Owing to the vote of certain municipalities declining to grant aid towards the construction of this projected line from Toronto to Ottawa via Cornwall, Ont., it is proposed to change the route somewhat between Kingston and Belleville, and to pass along the bay shore into Prince Edward county, thus avoiding Napanee and other points. (Sept., 1904, pg. 315.)

Ottawa and New York Ry.—The transfer of the shops from Santa Clara, N.Y., to Ottawa, Ont., is in progress. The tools are being installed and a shop storage house has been erected. (June, 1904, pg. 189.)

Pere Marquette Rd.—The new car shops at St. Thomas, Ont., for the P.M.R.'s Buffalo Division, which includes the Lake Erie and Detroit River Ry., and the London and Port Stanley Ry., have been completed, and the machinery is being installed. The L.E. and D.R.R. shops were at Walkerville, Ont., but after the P.M.R. took over the line it was decided to transfer the shops to a more central point, and St. Thomas was fixed on. The company is arranging to secure additional land for siding accommodation at St. Thomas. (Dec., 1904, pg. 429.)

Prince Edward Island Ry.—The contract for the construction of the 4.59 miles of branch line from Village Green to Vernon River Bridge has been let to Schurman, Morrison and Mitch, of Charlottetown, P.E.I., and that for the branch line from Cardigan to Montague Cross, 6.38 miles, to W. Kitchen, of Fredericton, N.B. (Dec., 1904, pg. 430.)

Quebec and Lake St. John Ry.—The La Tuque branch, 38 miles in length, from the main line near Jeannot River to the St. Maurice River, is under construction, and track has been laid for about eight miles. Work will be continued during the winter drilling and rock cutting, and it is hoped to complete the branch by Dec. J. Pacquet is the contractor. (Sept., pg. 315.)

Quebec, New Brunswick and Nova Scotia Ry.—See Canadian Northern Ry., pg. 27.

Queen Charlotte Islands Ry.—The B.C. Legislature will be asked at its next session to pass an act extending the time for the commencement and completion of the projected railway, and reviving, ratifying and confirming all the powers of the company. The company was incorporated in 1903 to construct a railway from Rennell Sound, Graham Island, to Skidgate Harbor on the same island, and from any point on the line to any point on Massett Inlet. M. King and J. Irving, of Victoria, B.C., were the incorporators.

Red Deer Valley Ry. and Coal Co.—Application will be made next session of the Dominion Parliament for an act authorizing an extension of the time for the commencement and completion of the lines authorized. (July, 1903, pg. 240.)

Southwestern Traction Co. (Electric).—The power house and car barns for the company are to be erected adjoining Chelsea Green, in Westminster township, near London, Ont., and a second car barn will be built near St. Thomas. The bridge work is progressing, but nothing has been arranged in the way of securing an entrance into St. Thomas. (Dec., 1904, pg. 431.)

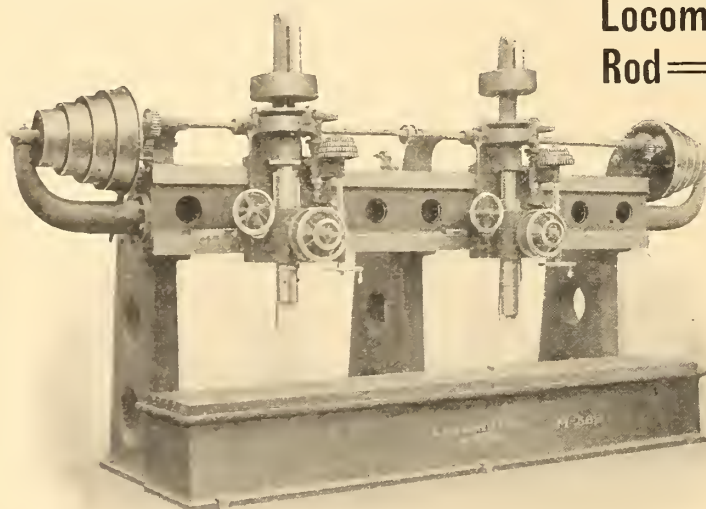
Standard Coal and Ry. Co.—Surveys will, it is reported, be made at an early date for the construction of a line from Parrsboro, N.S., to the coal mines at River Hebert, Maccan and surrounding country.

Sullivan Hill to North Star.—Application is being made under the B.C. Tramway Company Incorporation Act for the purpose of constructing a tramway between the Sullivan



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Hill, South-East Kootenay, and the North Star branch of the Crow's Nest Pass Ry., and to erect telegraph and telephone lines along the line. A general route of the projected tramway is shown on plans filed with the Government agent at Cranbrook, B.C., and with the Registrar of Joint Stock Companies at Victoria, B.C.

St. Marys and Western Ontario Ry.—The Dominion Parliament will be asked next session for the incorporation of a company with this title to construct a railway from the C.P.R. between Woodstock and London, Ont., northerly to St. Marys, thence to Lake Huron or to the St. Clair River between Grand Bend and Sarnia. J. W. Graham, St. Marys, Ont., and L. H. Dickson, Exeter, Ont., are the solicitors for the promoters.

Temiskaming and Northern Ontario Ry.—Tracklaying has been completed to Tomstown, about 14 miles beyond New Liskeard, Ont., and grading has been completed for nearly 60 miles further. On the line between North Bay and New Liskeard, 112 miles, the finishing touches are being given, and contracts have been let for the station buildings at Haileybury and New Liskeard. (Dec., 1904, pg. 431.)

Toronto and Hamilton Ry. (Electric).—Saltfleet township council has passed a by-law granting a right of way 25 ft wide adjoining the G.T.R. right of way, on the lake side, through the township. (Sept., 1904, pg. 317.)

Toronto, Hamilton and Buffalo Ry.—The new shops, which are being erected at Hamilton, Ont., to replace those burned in Oct., 1904, will be 206 by 36 ft. They will be of wood construction, the sides being sheeted and covered with corrugated iron, and the roof covered with a patent roofing. The building will be utilized as a car repair shop and blacksmith shop. (Dec., 1904, pg. 431.)

Toronto Union Station.—The matter of the expropriation of the lands south of Front St., in the burned-out district of Toronto, by the G.T.R., as a site for a new union station, has been before the Railway Commissioners on several occasions, and a special sitting of the Commission was arranged to be held in Toronto Dec. 22, to give further consideration to the matter. The G.T.R. desired to have the matter adjourned until Feb., in order to endeavor to complete negotiations with interested parties, but objection was taken to this course by leaseholders and others. Press reports stated that the C.P.R. and the G.T.R. had asked several Toronto architects to prepare plans for the new station. Inquiry among the architects failed to gather that any of them had been furnished with any data on which to prepare plans, and one of the principal officials of the G.T.R. told a Toronto architect, who asked for information on the subject, that the matter had not been sufficiently advanced to permit of plans being asked for. (Dec., 1904, pg. 431.)

Vancouver and Coast Kootenay Ry.—Application will be made next session of the Dominion Parliament for an act extending the time for the commencement and completion of the company's projected railway from Vancouver, B.C., eastward through the Kootenay district. (Jan., 1904, pg. 10.)

Vancouver and Northern British Columbia Ry.—Application will be made next session of the Dominion Parliament for an act incorporating a company to construct a railway from Vancouver, westerly and northerly via the Squamish Valley and Pemberton Meadows, to the northern boundary of British Columbia, with a branch line to Barkerville. H. J. Duncan, Vancouver, is solicitor for the promoters.

Vancouver, Victoria and Eastern Ry. and Navigation Co.—The line from Grand Forks to Phoenix, B.C., is 22 miles long, and was expected to be completed by Dec. 31, as also

was a branch line from Grand Forks to the Granby smelter, about 5 miles long. Under the charter of the Washington and Great Northern Ry. there has been constructed a piece of line 14 miles long, extending from Curlew to Midway, Wash., which is to form a section of the V.V. and E. Ry. (Dec., 1904, pg. 431.)

Vancouver, Westminster and Yukon Ry.—Application will be made next session of the Dominion Parliament for an act providing for the increase of the capital stock from \$2,000,000 to \$12,000,000; to extend the time for the completion of its lines for five years, and authorizing it to sell, lease, or otherwise dispose of its lines to any other railway company. (Dec., 1904, pg. 431.)

Walkerton and Lucknow Ry.—Application will be made next session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from Durham easterly to the Toronto, Grey and Bruce Ry. between Flesherton and Dundalk, and southerly from Lucknow to Wingham, with a branch from Teeswater northwesterly to Kincardine, Ont. A. H. Macdonald, Guelph, Ont., is solicitor for the applicants, and it is understood that the railway is being promoted in the interests of the C.P.R. (July, 1903, pg. 237.)

Western Alberta Ry.—Application will be made next session of the Dominion Parliament for an act empowering the company to transfer its railway, franchises and property to the Alberta Ry. and Irrigation Co., or to amalgamate with such company; and also extending the time for commencing and completing the construction of the projected railway from the International boundary, at some point west of range 20 west of the 4th principal meridian, northwesterly through the Old Man Valley, past Canmore and Anthracite, to the headquarters of the North Saskatchewan River, thence to the easterly base of the Rocky mountains.

Yale Northern Ry.—Application will be made next session of the B.C. Legislature for an act extending the time for the commencement and completion of the projected line from Grand Forks to the head waters of the Eagle Creek, B.C., about 75 miles, with a branch to Franklin Camp, 20 miles; and also to amend the list of charter members. H. St. Q. Cayley, Grand Forks, B.C., who is solicitor for the promoters, is one of the original incorporators.

Yonge Street Bridge.—The C.P.R. is taking steps to test the legality of the order to compel the erection of a bridge over the tracks at the foot of Yonge street, Toronto, and from all appearances there is considerable confusion as to the present position of affairs. The matter originally came before the Railway Committee of the Privy Council, which decided that the bridge was necessary, but had not issued the order when it was abolished and its duties taken over by the Board of Railway Commissioners; then there was a special act of parliament declaring the bridge matter to be one vested in the Governor in Council. An order was made directing the erection of the bridge, work to be commenced Oct. 15, but it was not issued until after that date. Nothing is likely to be done until the tangle is straightened out.

The plans for the bridge which the G.T.R. and the C.P.R. have been directed to build across the tracks at the foot of Yonge street, Toronto, were prepared in the office of the City Engineer, by J. Williams, M.C.S.C.E., assistant City Engineer. The illustrations of the bridge, given on page 9, show the three central spans over the tracks, the north and the southern approaches, together with a cross section near the centre. The total length of the bridge and approaches will be 880 ft., of which the steel work will be 595 ft. long and the masonry work of the approaches

285 ft. The bridge will be 56 ft. wide over all, having a roadway 38 ft. in width, and two sidewalks each 9 ft. wide on the approaches and deck spans, and 6½ ft. wide on the through spans. It will be composite in character, consisting of three deck spans about 140 ft. on the northern approach, three through spans 92½, 125 and 82½ ft. respectively, over the tracks and sidings of the railways, and three deck spans, about 150 ft., on the southern approach. The clear height of the centre span is 21½ ft., while at the side spans of the through spans it is slightly lower. The northern approach is planned to start from the south side of Front street, and is carried on concrete masonry walls for about 150 ft. It has a gradient of 3½%, while the gradient at the end of the southern approach at Lake street, also carried on concrete walls for 140 ft., is 6%, the centre span being level. For foot passengers who wish to pass from the bridge to Harbor Street, an 8 ft. stairway has been planned on the west side of the bridge. The superstructure will be supported on steel columns, on concrete piers resting on piles. It is proposed to make the bridge deck of a permanent character, the roadway and sidewalks to have asphalt surface, and asphalt and wooden blocks on a concrete foundation; the pavement between the street railway tracks to be square cut wood blocks, also on a foundation of concrete. The whole of the concrete foundation and asphalt and block surface is to be supported by steel buckled plates, rivetted to floor girders and stringers.

In connection with the erection of this bridge it would be necessary to secure some small pieces of land on the east side of Yonge Street, south of Front, and to make some alterations and improvements on Lake Street. Among the suggested improvements are the filling in of the present basins around the foot of Yonge Street, and the building of new wharves several hundred feet further out into the bay, so that another street could be formed running west to York Street. In this way traffic coming over the bridge would be brought to the wharf level by an easy gradient. (Dec., 1904, pg. 431.)

A friend of Mark Twain tells a story of the days when the humorist was a pilot on the Mississippi. One day Mr. Clemens missed his boat. Instead of inventing an excuse, he reported to his superior officer, as follows: "My boat left at 7.20. I arrived at the wharf at 7.35 and could not catch it."

The National Construction Co. (Ltd.) has been incorporated under the Dominion Companies' Act, with a capital of \$250,000, and its chief offices in Montreal, to carry on a general contracting and construction business. The provisional directors are Jos. Hobson, chief engineer; R. S. Logan, assistant to the Second Vice President; H. W. Walker, General Auditor; F. Scott, Treasurer; and H. Phillips, Secretary to the Second Vice President; all of Montreal, and all G.T.R. officials.

The Secretary, E. de la Hooke, has issued to the members of the Canadian Ticket Agents' Association one of his characteristic circulars, reviewing the excursions, etc., of the past year, and inviting increased membership for 1905. A meeting of the Executive is to be held early in the year to decide on the time and place for the next annual meeting. May or October are considered the best months for agents to be spared from their territory, while October is looked on as the most suitable from a weather standpoint. Members are asked for their views on these points. In referring to the Association's official organ, THE RAILWAY AND SHIPPING WORLD, Mr. de la Hooke speaks of it as "well worth a dollar of any railway man's money."

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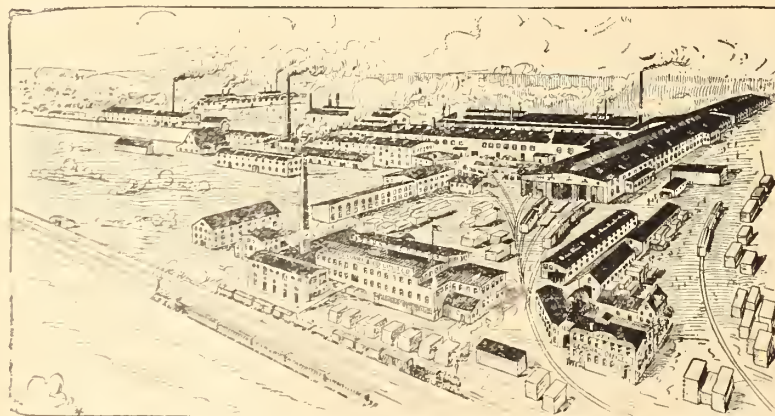
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MANITOBA with its network of railways, giving markets near at hand for all farm products, offers unrivalled opportunities for investment.

PROVINCIAL GOVERNMENT LANDS can still be purchased at from \$3 to \$6 per acre. **IMPROVED FARMS** in all districts of the province can be purchased at from \$10 to \$40 per acre. These prices are advancing every year.

A FEW POINTERS.

On arrival at Winnipeg the wisest policy for any new settler to adopt is to remain in Winnipeg for a few days and learn for himself all about the lands offered for sale and to homestead.

There are districts that have been settled for many years in which land can be purchased. Some of this may be unbroken prairie which still possesses all the richness and productive powers of our virgin prairies. Other lands, cultivated and having comfortable farm buildings, are ready for immediate possession.

There are Provincial Government lands, Dominion Government homesteads, and railway lands to be secured.

The price of land varies from \$3 to \$40 per acre. Location with respect to railways, towns, timber and water determines the price of land.

For information regarding homesteads, apply at the Dominion Land Office.

For purchase of Provincial lands apply at the Provincial Land Office in the Parliament Buildings.

For C.P.R. or C.N.R. lands apply at the land offices of said railway companies.

For lands owned by private individuals apply to the various real estate agents in the city.

For situations as farm laborers apply to :

J. J. GOLDEN,

PROVINCIAL INFORMATION BUREAU
617 MAIN ST., WINNIPEG

TRANSPORTATION APPOINTMENTS.

Board of Railway Commissioners.—It was semi-officially announced at Ottawa, on Dec. 24, that Mr. Justice Killam, of the Supreme Court, would be appointed Chief Railway Commissioner, to succeed Hon. A. G. Blair, resigned.

Canadian Manufacturers' Association.—J. R. Marlow, heretofore chief clerk to the Assistant Freight Traffic Manager, C.P.R. Eastern Lines, Toronto, has been appointed Manager Transportation Department of the Canadian Manufacturers' Association, Toronto, succeeding W. H. D. Miller, resigned to enter private employ.

Canadian Pacific Ry.—Hayter Reed, heretofore Manager of the Chateau Frontenac, Quebec, is being placed in general charge of the company's hotel system. His title has not been announced. Office, Montreal.

Geo. Major, heretofore Manager Place Viger Hotel, Montreal, has been appointed Manager Chateau Frontenac, Quebec, succeeding Hayter Reed, promoted.

J. H. R. Phillips, heretofore chief clerk Chateau Frontenac, Quebec, has been appointed Manager Place Viger Hotel, Montreal, succeeding Geo. Major, promoted.

H. Goldmark, heretofore in charge of the erection of the Angus shops, Montreal, and the Winnipeg shops, has resigned.

A. W. Horsey, heretofore chief draughtsman in the office of the Superintendent of Motive Power, has been appointed Mechanical Engineer. Office, Montreal.

C. W. Carey is reported to have been appointed Assistant Air Brake Instructor. Office, Montreal.

R. F. Struthers has been appointed Chief Inspector of Time Service for Western Lines. Office, Winnipeg, Man.

The title of J. K. Savage, who was reported in our October issue to have been appointed Inspector of Dispatchers, west of Fort William, is Inspector of Despatching for Western Lines. Office, Winnipeg, Man.

Chicago, Burlington and Quincy Ry.—A Canadian passenger agency will be established in Toronto, Jan. 1. J. A. Yorick, heretofore ticket agent Toronto, Hamilton and Buffalo Ry., Hamilton, Ont., has been appointed Canadian Passenger Agent.

The Dominion Ex. Co. has established another division, which comprises territory south and east of the St. Lawrence River, and is known as the Atlantic Division. V. G. R. Vickers, heretofore General Agent at Montreal, has been appointed Superintendent, with office at Montreal. W. A. Clark, heretofore General Agent at Ottawa, has been appointed General Agent at Montreal, succeeding V. G. R. Vickers; and G. Parker, heretofore acting Route Agent at Ottawa, has been appointed General Agent there, succeeding W. A. Clark.

Grand Trunk Pacific Ry. Co.—F. W. Morse, heretofore Third Vice-President, G.T.R., having been elected Vice-President and General Manager of the G. T. Pacific Ry., will, effective Jan. 1, 1905, devote his time exclusively to the interests of this company. He will have general supervision and direction of all departments of the company. Office, Montreal.

Grand Trunk Ry.—A circular issued by the Second Vice-President and General Manager, says: "John Bell, K.C., who for more than 50 years has been the trusted legal adviser of the company, has been obliged, owing to ill-health, to request that he be relieved of the active work and responsibilities incident to the position. It is a source of great satisfaction to know that Mr. Bell's long and valuable experience and knowledge of the company's affairs will still be available, when required, as Consulting General Counsel."

W. H. Biggar, K.C., heretofore Assistant

General Counsel, has been appointed General Solicitor. Office at Montreal.

M. K. Cowan, K.C., heretofore in general practice at Windsor, Ont., has been appointed Assistant Solicitor. Office, Montreal.

All communications, reports, documents, etc., respecting legal matters arising in Canada, except as hereafter stated, should be addressed to the General Solicitor.

A. E. Beckett will, as heretofore, continue to act as Solicitor in the Province of Quebec, and communications, reports, etc., regarding matters in his charge may be addressed to him at Montreal.

All communications relative to taxes and the assessment of the company's property should be addressed to E. Donald, Tax and Land Agent, Montreal.

D. L. McCarthy, Toronto, will, as heretofore, act as agent in Toronto of the General Solicitor.

The entire legal staff of the company has now been concentrated at Montreal, and the offices at Belleville, Ont., were to be closed Dec. 31. Some time ago, T. Watson, J. P. Pratt, and C. F. Earl, were transferred from Belleville to Montreal, and latterly W. W. Pope, W. E. Foster, and K. G. Spangenberg were moved.

No appointments have been made to the legal staff of the G.T. Pacific Ry., but J. D. Cameron, of Winnipeg, is representing the company there.

E. H. Fitzhugh, heretofore Vice-President and General Manager Central Vermont Ry., has been appointed Third Vice-President, G.T.R., with headquarters at Montreal, effective Jan. 1, 1905, vice F. W. Morse, transferred. He will have general supervision and direction of all departments of the company.

F. H. McGuigan, heretofore Manager G.T. R., has been appointed Fourth Vice-President with headquarters at Montreal, effective Jan. 1, 1905. He will have charge of the maintenance and transportation departments.

W. G. Brownlee, heretofore Superintendent Western Division, at Detroit, Mich., has been appointed Superintendent Middle Division, succeeding G. C. Jones, appointed General Manager Central Vermont Ry. Office, Toronto.

F. W. Egan, heretofore Assistant Superintendent at Island Pond, Vt., has been appointed Superintendent Western Division, succeeding W. G. Brownlee, promoted. Office, Detroit Mich.

C. L. Mayne has been appointed Assistant Superintendent 1st, 2nd and 3rd Districts, office at Island Pond, Vt., succeeding F. W. Egan, promoted.

J. L. Gogerty has been appointed general yard master at Point St. Charles, Montreal, succeeding J. F. Jones, promoted.

The office of Assistant Superintendent, districts 5, 6, and 7, with headquarters at Belleville, Ont., has been abolished, U. E. Gillen being transferred to London, Ont. H. F. Coyle, Trainmaster, will have charge of all matters pertaining to transportation. Reports for districts 6 and 7, heretofore made to the Assistant Superintendent, will be sent to the Trainmaster, Belleville.

The jurisdiction of L. G. Coleman, Trainmaster, district 4, has been extended over district 5, and reports for district 5, heretofore made to the Assistant Superintendent at Belleville, are to be sent to the Trainmaster at Montreal.

Jas. Markey has been appointed Master Mechanic, Northern Division, succeeding N. B. Whitsel, resigned. Office, Allandale, Ont.

U. E. Gillen, heretofore Assistant Superintendent, Belleville, Ont., has been appointed Assistant Superintendent at London, Ont., succeeding J. W. Higgins, resigned to enter the service of the Missouri Pacific Ry.

C. E. Horning, heretofore station ticket agent at London, Ont., has been appointed city passenger and ticket agent at Toronto, vice J. W. Ryder, resigned. Several other

changes have been made in the staff of the office.

E. Ruse, heretofore chief clerk in the City Ticket Agent's office, London, Ont., has been appointed station ticket agent there, succeeding C. E. Horning, promoted.

B. Hayes, heretofore ticket clerk at Stratford, Ont., has been appointed chief clerk in the City Ticket Agent's office, London, Ont., succeeding E. Ruse, promoted.

The following agents have been appointed: St. Madeline, Que., H. A. Dunn; Danville, Que., J. E. Guilmet; St. Martine Jct., Que., J. B. Lavigne; Lyn, Ont., P. Fox; Stirling, Ont., A. L. Coulter; Campbellford, Ont., W. S. Harrison; Millbrook, Ont., G. F. Burton; Lakefield, Ont., J. H. Chant (acting); Kirkfield, Ont., R. A. Levias; Cobocok, Ont., C. M. Adams; Colwell, Ont., L. Dodds; Queen St. East, Ont., S. J. Cochrane; Breslau, Ont., W. M. Middleton.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—A. L. Preston, heretofore contracting agent, St. Paul, Minn., has been assigned to duty at Winnipeg, Man., as General Agent for both freight and passenger departments.

Pere Marquette Rd.—The offices of the Buffalo Division, heretofore at Walkerville, Ont., where they were established under the old Lake Erie and Detroit River Ry. management, have been removed to St. Thomas, Ont. The offices of the Superintendent, Trainmaster, Assistant Engineer, Assistant Master Mechanic, and Road Master are now located at St. Thomas. The local affairs of the company at Walkerville are looked after by O. C. Tillson, agent.

J. S. Pyeatt, heretofore Superintendent of Telegraph, at Detroit, has been appointed Superintendent Buffalo Division, vice W. Woollatt, resigned on account of ill-health. Office, St. Thomas, Ont.

H. O. Halsted has been appointed Superintendent of Telegraph, succeeding J. S. Pyeatt, promoted. Office, Detroit, Mich.

J. MacManamy, heretofore road foreman of locomotives, Grand Rapids, Mich., has been appointed Assistant Master Mechanic in charge of shops, motive power and cars of the Buffalo Division. Office, St. Thomas, Ont.

Quebec and Lake St. John Ry.—J. Allan has been appointed General Car Inspector. Office, Quebec.

Richelieu and Ontario Navigation Co.—H. M. Bolger, Secretary-Treasurer, has resigned.

The Toronto and York Radial Ry. Co.'s system embraces the lines of the Toronto and Mimico, the Metropolitan, and the Toronto and Scarboro electric railways, which are now designated as the Mimico, the Metropolitan, and the Scarboro divisions respectively. W. H. Moore has been appointed Manager and J. C. McArthur Superintendent.

J. W. Moyes, heretofore Superintendent of the Metropolitan Ry., has resigned.

Toronto Ry. Co.—R. J. Fleming, heretofore Assessment and Property Commissioner for the City of Toronto, has been appointed General Manager Toronto Ry., succeeding E. H. Keating, appointed Consulting Engineer to Mackenzie, Mann & Co.

Transcontinental Railway Commission.—A. T. Gow, heretofore chief clerk in the Canada Atlantic Ry. Audit Office, has been appointed Accountant for the Commission. Office, Ottawa, Ont.

R. M. J. Gill, heretofore in the Audit Office, Halifax and Southwestern Ry., has been appointed Assistant Chief Accountant.

F. White, heretofore in the C.P.R. service, has been appointed Assistant Purchasing Agent.

H. G. Alton has been appointed local purchasing agent at Winnipeg.

Great Northwestern Telegraph Co.—L. S. Haines, of St. Paul, Minn., has been appointed General Superintendent. Office, Toronto.



New, 25 Pounds

STEEL BACK CAR BRAKE SHOE

Can be applied to any type of shoe.

The **Steel Back** doubles the life of the shoe.



Scrap, 5 Pounds

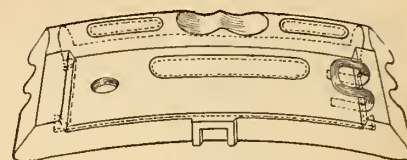
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Perfecto Driver Brake Shoe

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 { 1015 Missouri Trust Bldg., St. Louis, Mo.
 { 501 Arcade Bldg., Philadelphia, Pa.
 { 1005 Mutual Savings Bank Bldg., San Francisco, Cal.

Pintsch System Car and Buoy Lighting.

This Company controls in the United States and Canada the celebrated Pintsch System of Car and Buoy Lighting which is universally used. It is economical, safe, efficient, and approved by the railway managers and the Lighthouse Board of the United States, and has received the highest awards for excellence at the World's Expositions at Moscow, Vienna, St. Petersburg, London, Berlin, Paris, Chicago, Atlanta and Buffalo. 130,000 cars, 6,000 Locomotives and 1,700 Buoys are equipped with this light. 170 Railroads in the United States, Canada and Mexico have adopted this system of lighting, applied on over 23,000 cars.

Car Heating

By Steam Jacket System of Hot Water Circulation, Direct Steam and Regulating Direct Steam Systems. 130 Railroads in the United States are using these systems of Heating—applied on over 14,500 cars.

AUTOMATIC STEAM TRAPS.

STRAIGHT PORT COUPLERS.

MAINLY ABOUT PEOPLE.

Jas. Ross, of Montreal, has given \$25,000 towards the projected Alexandra Hospital there.

I. Bond, C.P.R. train dispatcher, Ottawa, Ont., has recovered from an attack of pneumonia.

J. Rattray, Superintendent Hendrie Cartage Co., contractors for G.T.R. cartage, died in Hamilton, Ont., recently.

J. H. Bertram, of the John Bertram & Sons Co., Dundas, Ont., was married at Grimsby, Ont., to Miss D. Smith, recently.

Jas. McLeod, master mechanic for 30 years at the Locomotive Works, Kingston, Ont., under its different owners, died there Nov. 28.

Miss A. C. Seely, who was married in New York recently to F. W. Stevens, is a daughter of D. J. Seely, shipbroker, etc., St. John, N.B.

W. C. McGovern, who has been appointed a Division Superintendent, Southern Pacific Rd., is a native of the Eastern Townships, Que.

Mrs. L. Tandy, who died at Kingston, Ont., Dec. 10, aged 84, was mother of H. Tandy, Superintendent Canadian Locomotive Co. there.

W. Whyte, Second Vice-President C.P.R., Winnipeg, Man., has been elected a director of the Confederation Life Assurance Co., of Toronto.

H. B. Slaven, who was engaged on the survey of the C.P.R. line through Manitoba, for the Mackenzie Government, died in New York city recently.

M. K. Cowan was entertained at dinner recently by residents of Windsor, Ont., on leaving for Montreal to become Assistant Solicitor of the G.T.R.

D. E. Brown, General Agent, C.P.R., at Hong Kong, after he left Montreal, at the end of Oct. went to California, and will not return to Hong Kong until the spring.

R. G. Reid, President Reid Newfoundland Co., Mrs. and Miss Reid, and W. D. Reid, have returned from St. Johns, Nfld., to Montreal, where they will spend the winter.

Capt. S. F. Stanwood, who was for many years connected with the Yarmouth-Boston steamship service, died at Boston, Mass., Dec. 6, and was buried at Yarmouth, N.S.

J. Allan, foreman car inspector G.T.R., Brockville, was recently presented with an address and a purse of money by the employees of the department, on his leaving for Quebec.

At the inquest on the body of C. A. Parker, Vice-President of the Cincinnati, Hamilton and Dayton and Pere Marquette Rd., a verdict of suicide from prussic acid was returned.

W. Molson Macpherson, agent Dominion Line Steamships in Quebec, and Mrs. Macpherson, are spending the winter in Egypt, and will visit Ceylon before returning to Canada.

J. J. Brignall, chief clerk in the C.P.R. District Passenger Agent's office, Toronto, who has been absent from duty for some months on account of ill-health, has returned to his office.

C. R. Hosmer, director C.P.R., is a member of a Montreal syndicate which has purchased the Kakabeka falls of the Kaministiquia River, near Fort William, Ont., for power purposes.

J. W. Higgins, who until recently was Assistant Superintendent, Middle Division G.T.

R., at London, Ont., has taken up his duties as Inspector of Transportation, Missouri Pacific Ry., St. Louis, Mo.

Jno. Devine, formerly Assistant Superintendent Northern Division G.T.R., Allandale, Ont., who was granted an extended leave of absence in Feb., 1904, on account of ill-health, died at Hamilton, Ont., Dec. 8.

C. H. Bevington, at one time Assistant Superintendent Middle Division G.T.R., London, Ont., has been appointed Superintendent Southern Division, Colorado and Southern Ry., at Trinidad, Col.

J. C. Buntzen, General Manager B.C. Electric Ry. Co., has been presented with a group photograph of the employees of the different branches of the company's undertaking, together with an illuminated address signed by them.

G. S. Deeks, railway and general contractor, St. Paul, Minn., who has completed the con-

Division, Allandale, Ont., was presented recently with a gold watch, chain and locket, and a silver tea set by the employees of the department, on leaving for the United States, where he will reside.

The council of administration which will have charge of the Transportation Department at McGill University, will consist of Sir Thos. Shaughnessy, President C.P.R.; C. M. Hays, Second Vice-President and General Manager G.T.R.; C. B. Greenshields, R. B. Angus and C. J. Flett.

Sir E. P. Girouard has been gazetted a Lieut.-Colonel in the Royal Engineers, which rank he held locally while he was Commissioner of Railways in the Transvaal and Orange River colonies. He has also been voted a gratuity of £5,000 in connection with his duties there.

John Bertram, Chairman of the Transportation Commission, died at his residence in Toronto, Nov. 28, after an illness of six months, which necessitated the adjournment of the sittings of the Commission for an indefinite period. Mr. Bertram was President of the Bertram Engine Works, Toronto, and of the Collins Bay Lumber Co.

The action to have the will of the late A. Dunsmuir, brother of Jas. Dunsmuir, President Esquimalt and Nanaimo Ry., set aside, is again before the British Columbia courts, on an appeal from the decision given in Dec., 1903, dismissing the action then brought. The appellants are E. W. Hopper, an actress, daughter of the late Mrs. A. Dunsmuir, and Mrs. Dunsmuir, mother of the testator.

A. G. Ardagh, who was recently appointed Resident Engineer, district 2, Ontario Division, C.P.R., Toronto, was born at Barrie, Ont., Nov. 18, 1864, and entered railway service Nov. 12, 1900, since which his record has been: To Oct. 1, 1902, Division Engineer's staff, Ontario Division, Toronto; Oct. 1, 1902, to Sept. 26, 1904, Resident Engineer district 1, Ontario Division, Toronto. Entire service with C.P.R.

R. J. Fleming, who has been appointed General Manager Toronto Ry., was born Nov. 23, 1854, at Toronto, and entered public life as a city alderman, 1886, serving until 1890; was elected Mayor in 1892, and was re-elected in 1893; he was again elected in 1896, and re-elected in 1897, but retired in Aug. of that year to become Assessment Commissioner. In 1903 the duties of Property Commissioner were added.

J. S. Pyeatt, who has been appointed General Superintendent Buffalo Division, Pere Marquette Rd., at St. Thomas, Ont., was born in 1874, and entered railway service with the Missouri, Kansas and Texas Ry. System. For years he was assistant to General Manager Cotter, of the Missouri Pacific Rd., St. Louis, and on the latter being appointed to the Pere Marquette, he was made Superintendent of Telegraphs with office at Detroit, Mich.

N. I. Rand, Master Mechanic Intercolonial Ry., Moncton, N.B., whose jurisdiction has recently been extended, was born at Shediac, N.B., Oct. 28, 1843, and entered railway service in 1859, his record being 1859 to 1866, apprentice European and North American Ry., Shediac, N.B.; 1866 to 1875, locomotive engineer with F and N A Ry., and its successor the Intercolonial Ry.; 1875 to 1890, roundhouse foreman, Moncton, N.B.; 1890 to 1902, road foreman of engines.

J. A. Yorick, who has been appointed Canadian Passenger Agent, Chicago, Burlington



JOHN FOY,

Born in Toronto June 24, 1845, died there Dec. 6, 1904

struction of the Winnipeg subway for the C.P.R., was recently married at Toronto Jct., Ont., to Miss H. Campbell, daughter of A. Campbell, M.P.

Major E. W. Rathbun, President Bay of Quinte Ry., and other lines, etc., of the Rathbun Company, Deseronto, has been selected as the Liberal candidate for Hastings at the forthcoming general election for the Ontario Legislature.

A. D. Weller, heretofore excursion clerk in the office of the C.P.R. District Passenger Agent, Toronto, was presented with a signet ring recently by the staff, on leaving to enter the office of the General Passenger Agent, New York Central Rd.

An Ottawa despatch to the Toronto Globe states that J. H. Ashdown, wholesale hardware merchant, Winnipeg, will be appointed a member of the Transportation Commission to succeed the late John Bertram, of Toronto, who was chairman of the commission.

N. B. Whitsel, who has resigned his position as Master Mechanic, G.T.R. Northern

CANADIAN NORTHERN RAILWAY

THE NEW CANADIAN HIGHWAY FROM PORT ARTHUR, THE
HEAD OF LAKE SUPERIOR, TO—

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BRANDON**

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CARMAN
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Line surveyed and now under construction to :—

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FREIGHT:—Shipments are handled from points in Eastern Canada, either Grand Trunk or Canadian Pacific Railways, via North Bay to Port Arthur, thence Canadian Northern Railway.

PASSENGER:—Passengers destined to points on the Canadian Northern Railway north, south and west of Winnipeg, can purchase through tickets via Chicago and St. Paul, where connection is made with the Canadian Northern Flyer for Winnipeg via Great Northern Railway, also with Northern Pacific Railway.

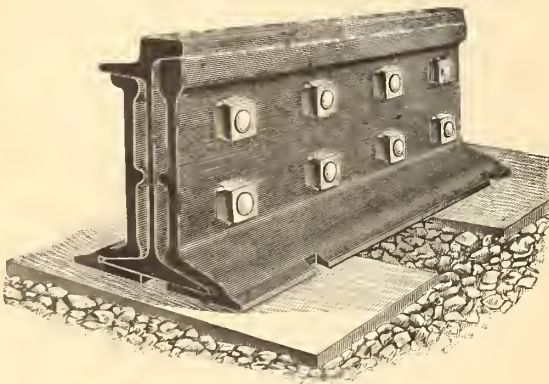
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GEO. H. SHAW, Traffic Manager,
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QUEBEC TORONTO

Canada Southern Railway Company

NOTICE is hereby given that the Canada Southern Railway Company will apply to the Parliament of Canada, at the next ensuing session thereof, for an Act to extend the times limited for the commencement and completion of the unconstructed lines or branches of railway authorized by the Acts relating to the Company, to enable it to lend its credit to and guarantee the securities of Companies with whose works its railway connects, and for other purposes.

Dated at St. Thomas, this 22nd day of November, 1904.

KINGSMILL, HELLMUTH, SAUNDERS & TORRANCE
Solicitors for the applicants,
19 Wellington St. West, Toronto, Ont.

NOTICE.—The Walkerton and Lucknow Railway Company will apply to the Parliament of Canada, at its next session for authority to build an extension of its authorized line from Durham easterly to a point of connection with the Toronto, Grey and Bruce Railway between Flesherton and Dundalk, and southerly from Lucknow to Wingham, and a branch line from Teeswater north-westerly to Kincardine, all in the Province of Ontario.

A. H. MACDONALD,
Solicitor for the applicants.

Guelph, 29th November, 1904.

NOTICE.—The Calgary and Edmonton Railway Company will apply to the Parliament of Canada, at its next session, for an act extending the time within which the company may construct the branches mentioned in section 6 of the Act 3 Edward VII, chapter 89, and also amending sub-section (a) of the said section 6, so as to read as follows:

(a) "Starting at Wetaskiwin and running in an easterly direction a distance of one hundred miles."

H. CAMPBELL OSWALD,
Secretary.

Montreal, 29th November, 1904.

and Quincy Rd., was born at London, Ont., May 7, 1872, and entered railway service in 1888, his record being: May, 1888, to Sept., 1894, ticket clerk, G.T.R., Stratford, Ont.; Sept., 1894, to May, 1901, station ticket clerk, G.T.R., Stuart St., Hamilton, Ont.; May, 1901, to July, 1901, G.T.R. city ticket office, Buffalo, N.Y.; July, 1901, to Dec., 1904, depot ticket agent, Toronto, Hamilton and Buffalo Ry., and C.P.R., at Hamilton, Ont.

W. H. Biggar, who has been appointed General Solicitor to the G.T.R. at Montreal, succeeding John Bell, of Belleville, was born at the Carrying Place, near Trenton, Ont., Sept. 19, 1852, and was educated at Trenton Grammar School, and Upper Canada College, and began the study of law in 1875, after engaging for a short time in mercantile pursuits. He was called to the bar in 1880, and became associated with John Bell, K.C., then General Counsel to the G.T.R., in general practice in 1881, and was appointed Assistant General Counsel at Montreal, Jan., 1903. He was elected Mayor of Belleville in 1887, represented West Hastings in the Ontario Legislature from 1890 to 1897, and was made a K.C. in 1900.

E. R. Burpee, of Bangor, Me., who died at Boston, Mass., Nov. 25, was a native of Sheffield, N.B., and for a number of years was engaged in railway engineering and construction in the Maritime Provinces. In 1858-9 he was an engineer on construction of the European and North American Ry. between St. John and "The Bend," and subsequently was engaged on surveys or construction for the Woodstock branch railway; the Western Extension Ry., St. John to Vanceboro'; the European and North American Ry., to Mattawamkeag; the Carleton branch railway, and the Fredericton railway; the Prince Edward Island Ry.; the Springhill-Parrsboro railway, and some portion of the New Brunswick Ry., now the C.P.R.

Mrs. Vickers, who died in Toronto Dec. 24, aged 73, was the widow of the late J. J. Vickers, proprietor of Vickers Express Co. She was born in 1832 at Reydon Hall, Suffolk, Eng. That year her father, Lieut. Moodie, who had been wounded in the battle of Bergen up Oom, Holland, was granted by the English Government lands in the Douro section of Upper Canada, and the family moved to Canada. Lieut. Moodie was the first Sheriff of Hastings. Deceased married Mr. Vickers in August, 1855, and had resided in Toronto ever since. She leaves five daughters and four sons, among the latter being J. A. D. Vickers, Superintendent of the National Express Co., Chicago; and V. G. R. Vickers, Superintendent of the Atlantic Division of the Dominion Express Co., Montreal.

C. E. E. Ussher, General Passenger Agent C.P.R. Eastern Lines, at Montreal, whose portrait appears on the first page of this issue, was born at Niagara Falls, Ont., Dec. 29, 1857, and entered railway service 1874, as clerk in the Auditor's office, Great Western Ry., since which he has been consecutively: May, 1876, to June, 1880, clerk general passenger department, same road; June, 1880, to April, 1883, chief ticket clerk Wabash, St. Louis and Pacific Ry.; April, 1883, to Nov., 1883, rate clerk Chicago and Atlantic Rd.; Nov., 1883, to Nov., 1886, in commercial business in Hamilton, Ont.; Nov., 1886, to May, 1889, chief ticket clerk C.P.R.; May, 1889, to Jan. 1, 1898, Assistant General Passenger Agent; Jan. 1, 1898, to date General Passenger Agent, C.P.R. lines east of Lake Superior.

Albert Clements Killam, who will probably be appointed Chairman of the Board of Railway Commissioners for Canada, was born at Yarmouth, N.S., Sept. 18, 1849, and was educated there and at the University of Toronto,

whence he graduated B.A., with silver medal in mathematics and in modern languages, Prince of Wales prizeman, 1872. He was called to the Ontario bar in 1876, practising at Windsor until 1877, when he moved to Winnipeg, where he was admitted to the Manitoba bar, and was created a Q.C. in 1884. He entered the Manitoba Legislature in 1883, and in the following year was appointed a Puisne Judge of the Court of Queen's Bench, Manitoba, becoming Chief Justice in April, 1899. In Aug., 1903, he was appointed to the Supreme Court at Ottawa. He married in 1877, the youngest daughter of the late R. A. Whyte, of Windsor, Ont.

E. H. Keating, who has been appointed Consulting Engineer to Mackenzie, Mann & Co., was born at Halifax, N.S., Aug. 7, 1844, and studied engineering under Sir Sandford Fleming, when Chief Engineer of the Intercolonial Ry. As an engineer he filled the following positions:—Assistant Engineer, Picton Extension Ry.; Chief Draughtsman, Windsor and Annapolis Ry.; contractor's Engineer, European and North American Ry.; Assistant Engineer on construction several divisions Intercolonial Ry., in N.S. and N.B., and Division Engineer in charge of exploration on C.P.R. He has also filled the position of City Engineer and Chief Engineer of the waterworks, and engineer in charge of construction of the graving dock, Halifax, N.S.; City Engineer of Duluth, Minn.; City Engineer, Toronto, and since 1900, General Manager, Toronto Ry. He has left Toronto for Mexico to look after the firm's interests there, and may visit Brazil before returning to Toronto.

J. W. Platten has been appointed Second Vice-President of the Lehigh Valley Rd., with offices at Philadelphia and New York. He has charge of the financial and accounting affairs of the company and of its purchasing department. The General Auditor, the Treasurer and the Purchasing Agent report to him. He was born at Port Perry, Ont., Dec. 6, 1863, and entered the service of the Central Bank in 1884. He first entered railway service in 1889, in the Assistant General Passenger Agent's office of the Erie Rd., at Cleveland, Ohio, becoming assistant secretary in the office of the Vice-President in 1890; and assistant secretary to the President, 1891; in 1893 the duty of chief clerk of the Insurance Department was added; in 1895 he became Purchasing Agent, and in 1899, Treasurer. He left the service of the Erie Rd. in 1903, becoming assistant to the President, Lehigh Valley Rd., and in Nov., 1904, was made Second Vice-President. He is a brother-in-law of S. J. Sharp, Western Passenger Agent C.P.R. Atlantic Steamships, Toronto.

John Foy, President Niagara Navigation Co., died at his Toronto residence, Dec. 6, aged 59. He contracted a cold at the St. Andrew's ball about a week previously. This was followed by erysipelas, which was got under control, but his heart was so weak that he did not rally, and died after a very short illness. He was born in Toronto in 1844, his father, Patrick Foy, being a member of the well-known firm of Foy & Austin, wholesale grocers. After being educated at Ussher College, Durham, Eng., Jno. Foy travelled through France and Algiers, and on returning to Toronto entered the service of Frank Smith & Co., wholesale grocers, remaining with them for a number of years and taking special charge of the confidential business of the head of the firm, the late Sir Frank Smith, in whose interest he spent several years in London, Eng. On the organization of the Niagara Navigation Co. in 1878, Mr. Foy became a director, and in 1879 was appointed Manager, holding that position until 1903, when he retired, and was appointed President. He married a daughter of the late Sir Frank Smith, and leaves a family

of five daughters and two sons, one of whom, Frank, is city ticket agent in Toronto for the New York Central Rd., the other, John V., being in the Niagara Navigation Co.'s office.

W. Woollatt, who has resigned his position as Superintendent Buffalo Division, Pere Marquette Rd., on account of ill-health, was born at Weedon, Hertfordshire, Eng., April 2, 1855, and entered railway service 1872 as office boy in the Mechanical Superintendent's office, Northern Ry. of Canada, the title of which was changed to the Northern and Northwestern Rys., in 1879; remained in the mechanical department until 1877, since which he has been consecutively: 1877 to 1880, stenographer in general freight and passenger department same road; 1880 to 1882, chief clerk same department; 1882 to 1884, chief clerk audit department; 1884, again made chief clerk general passenger department, and held that position until the road was absorbed by the G.T.R.; Jan., 1889 to 1891, General Freight Agent, Lake Erie and Detroit River Ry.; 1891 to May, 1900, General Superintendent and Traffic Manager, same road; May, 1900, General Manager same road. In 1903 the line was absorbed by the Pere Marquette Rd., when he was named Superintendent L.E. and D.R. Ry., P.M. Rd., and subsequently Superintendent Buffalo Division P.M. Rd. Mr. Woollatt, who has not been in very good health recently, intends resting for a few months and will probably visit the Northwest.

Hayter Reed, who has been appointed Inspector of C.P.R. hotels, was born at L'Orignal, Ont., May 26, 1849, and was educated at Upper Canada College and the Model Grammar School, Toronto. He was connected with the militia service for a number of years, went to Manitoba with the Provisional Battalion of Rifles in 1871, and remained on service until it was disbanded; he finally retired from the militia service in 1881, with the rank of Major. He was called to the bar of Manitoba in 1872, and entered the outside service of the Department of the Interior in 1881, serving as Indian agent, Battleford District, and assistant Indian Commissioner for Manitoba and the Northwest Territories. He was appointed a member of the Northwest Council April, 1882; served as Administrator of the Government of the Northwest Territories, 1884, and afterwards as Commissioner of Indian Affairs, and Deputy Superintendent-General of Indian Affairs, holding the latter office from 1893 to 1897, when he was placed on the retired list. He was subsequently Secretary of St. James' Club, Montreal, and until his present appointment, Manager of the Chateau Frontenac, Quebec. He married first a daughter of the late Lieut. Col. Ponton, of Belleville, who died in 1889, and in 1894, Kate, eldest daughter of the late Chief Justice Armour, of Ontario.

The shipping firm of William Peterson (Ltd.) of Newcastle-on-Tyne, Eng., has filed a petition in bankruptcy. It is stated that the attempt of the company to establish a steamship service between Canada and continental ports, for which the Dominion Government granted a subsidy, was among the causes of the failure. A subsidy for a France-Canada service was voted in 1903, and taken up by a Bordeaux, France, firm, and steamers were placed on the route, but the Government refused to continue the subsidy to this firm, as its steamers first stopped at the French port of St. Pierre, Miquelon, off Newfoundland. The Peterson Company, which was interested in the Canadian Lines (Ltd.), then arranged to take up the subsidy, in connection with the steamers being run between Antwerp and Montreal.

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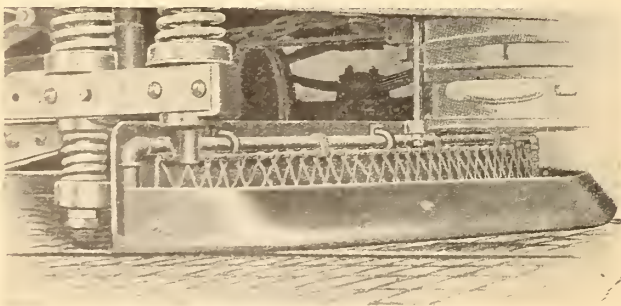
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IT PREVENTS EVERYTHING FROM
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The General Manager of a Western City Traction Company said to us recently:

"We bought your fenders to guard our road against loss by accident. The Sterling serves the purpose of a fender and is put where a fender ought to be, namely on the truck and near the rails. The front fender is required by the city officials, and we put it on to comply with the ordinance, but the Sterling we put on to save lives."

STERLING-MEAKER CO., NEWARK, N.J., U.S.A.

Canadian Street Railway Association.

A short time ago W. H. Moore, Assistant to the President of the Toronto Ry., suggested to W. G. Ross, Managing Director of the Montreal Street Ry., the formation of an Association to embrace the Canadian street railways. The suggestion was heartily approved of by Mr. Ross, who has taken a prominent part in the proceedings of U. S. street railway associations. A preliminary meeting was held and invitations were sent out for a general meeting, which was held at the Windsor Hotel, Montreal, on Dec. 20 and 21, the following being present:—W. G. Ross, Managing Director; P. Dubee, Secretary; D. McDonald, Manager; L. Trudeau, Superintendent, R. M. Hannaford, Chief Engineer; N. Graburn, Master Mechanic; D. E. Blair, Superintendent of Rolling Stock; H. E. Smith, Accountant, Montreal Street Ry.; W. H. Moore, Assistant to the President; R. J. Fleming, General Manager, Toronto Ry.; Col. H. H. McLean, K.C.; M. Neilson, C.E., directors; W. Z. Earle, Secretary-Treasurer and Manager, St. John Ry., St. John, N.B.; E. A. Evans, General Manager, Quebec Ry., Light and Power Co.; A. H. Royce, Vice-President, Toronto Suburban Ry.; C. E. A. Carr, General Manager and Secretary-Treasurer, London Street Ry.; Dr. S. Ritter Ickes, Treasurer Grand Valley Ry., Brantford, Ont. There were also present by invitation W. B. Brockway, Sec.-Treas. Street Ry. Accountants' Association of America, New York; E. H. White, Cashier, Hartford, Conn., Street Ry., and Acton Burrows, Publisher of THE RAILWAY AND SHIPPING WORLD. W. G. Ross presided at the meetings.

The constitution provides that the name shall be the Canadian Street Ry. Association, and that its office shall be at the place where the Secretary-Treasurer resides. The object of the society shall be the acquisition of experimental, statistical and scientific knowledge relating to the construction, equipment and operation of street railways, and the diffusion of the knowledge among the members of this association, with a view to increasing the accommodation of passengers, improving the service and reducing its cost; and the encouragement of cordial and friendly relations between the roads and the public. The members of the association shall be such street railway companies in the Dominion as may be approved by the Executive Committee. Each member is entitled to one

vote by a delegation presenting proper credentials.

Papers were read by E. A. Evans, on handling express by electric suburban railways, and by D. McDonald, on relieving congested traffic at rush hours. Both papers gave rise to interesting discussions.

The following officers were elected:—President, W. G. Ross, Montreal; Vice-President, W. H. Moore, Toronto; Secretary-Treasurer, A. H. Royce, Toronto; Executive Committee, C. E. A. Carr, London, Ont.; E. A. Evans, Quebec; D. McDonald, Montreal; Attorney, Col. H. H. McLean, K.C., St. John, N.B.

Messrs. Ross and Moore, and other delegates, expressed their warm appreciation of THE RAILWAY AND SHIPPING WORLD, and testified to the accuracy of its information and to the services it had rendered to the transportation interests of the country. At a subsequent meeting of the Executive Committee it was decided to make it the official organ of the Association.

The delegates attending the meeting were most hospitably entertained by the Montreal Street Ry. Co., the attentions including a dinner at the St. James' Club, and a trip on the private car to the company's car shops, barns and power house.

Pension schemes are under consideration for the employes of the Intercolonial Ry., and for the Michigan Central Rd. The former will probably be discussed next session of Parliament. The Government's proposals have been considered by the employes of the different divisions of the I.C.R., and resolutions of approval passed.

NOTICE is hereby given that at the next session of Parliament, an application will be made by the Canadian Northern Railway Company for an act extending the time for the construction of the company's uncompleted lines of railway; and authorizing the company to lease or acquire running powers over the lines and leased lines of the Great Northern Railway of Canada, and the Chateaugay and Northern Railway Company, and the Irondale, Bancroft and Ottawa Railway Company, and the Quebec, New Brunswick and Nova Scotia Railway Company, and the James Bay Railway Company, or any of them, or to purchase such lines or any of them, or to amalgamate with the said companies or any of them.

Also authorizing the company to construct the following lines:—

1. From Regina north-westerly and westerly to a point on the Red Deer River in the District of Alberta, with a branch line west of the Saskatchewan River and running north-easterly to a point in Township 45, Range 4, west of the 3rd Meridian, in or near Carlton on the North Saskatchewan River.

2. From Regina northerly to or near Humboldt; thence north-easterly down the valley of the Carrot River to a point at or near the Pas Mission on the Saskatchewan River.

3. From a point on the main line of the Canadian Northern Railway between Humboldt and the South Saskatchewan River north-easterly to a point at or near the crossing of the South Saskatchewan River by the Prince Albert branch of the Canadian Northern Railway.

4. From a point on the main line of the Canadian Northern Railway west of Battleford into Battleford.

Z. A. LASH,
Solicitor for the applicant.

Dated 21st December, 1904.

NOTICE.—The Calgary and Edmonton Railway Company will apply to the Parliament of Canada at its next session for an act amending the act respecting the company, being chapter 89 of the Statutes of 1903, so that in respect of the high level bridge which the company is authorized by section six of the said act to construct over the Saskatchewan River, between Strathcona and Edmonton, the company shall have power to issue bonds or other securities in respect of the said bridge and its approaches to an amount not exceeding one million dollars, to secure the same by mortgage, to make agreements with other railway companies for the use of the said bridge, and, if the said bridge be constructed for the use of foot passengers and carriages, to charge tolls for the use thereof by the same, to lease the said bridge to the Canadian Pacific Railway Company, and to have in respect of the said bridge such other powers as are usual and necessary for undertakings of a similar character.

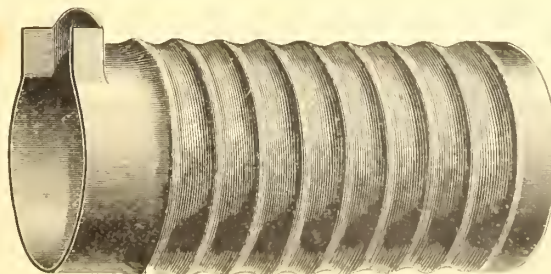
H. CAMPBELL OSWALD,
Secretary.

Montreal, 22nd December, 1904.

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The universally satisfactory record of "THE MORISON" proclaims it the best furnace made.

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C.P.R. LANDS.

THE CANADIAN PACIFIC RAILWAY COMPANY have 12,000,000 acres of choice farming lands for sale in Manitoba, Assiniboia, Saskatchewan and Alberta. Manitoba lands and Assiniboia lands east of third meridian, \$4.00 to \$10.00 per acre according to quality and location. Lands in South-Western Assiniboia and Southern Alberta, \$3.50 to \$8.00 per acre. Ranchings lands generally \$4.50 to \$4.00 per acre. Northern Alberta and Saskatchewan lands generally \$6.00 to \$8.00 per acre. Maps showing the lands in detail will be sent free on application.

TERMS OF PAYMENT.

An actual settler may purchase 640 acres, or less, on the 10 payment plan, by which the aggregate amount of principal and interest is divided into a cash instalment to be paid at the time of purchase and nine equal deferred instalments annually thereafter, as follows:

- 160 acres at \$4.00 per acre, 1st instalment \$95.85, and 9 equal instalments of \$80.
- 160 acres at \$4.50 per acre, 1st instalment \$107.85, and 9 equal instalments of \$90.
- 160 acres at \$5.00 per acre, 1st instalment \$119.85, and 9 equal instalments of \$100.
- 160 acres at \$5.50 per acre, 1st instalment \$131.80, and 9 equal instalments of \$110.
- 160 acres at \$6.00 per acre, 1st instalment \$143.80, and 9 equal instalments of \$120.00.
- 160 acres at \$6.50 per acre, 1st instalment \$155.80, and 9 equal instalments of \$130.00.
- 160 acres at \$7.00 per acre, 1st instalment \$167.80, and 9 equal instalments of \$140.00.

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

DISCOUNT FOR CASH.

If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. on five-sixths of the purchase money. Interest at six per cent. will be charged on overdue instalments.

F. T. GRIFFIN,

Land Commissioner C.P.R. Co., Winnipeg

CANADA NORTH-WEST LAND CO.

This Company has 800,000 acres of selected lands in Manitoba and Assiniboia which offer excellent opportunities to settlers and investors who desire to secure good lands in well settled districts. These lands are on sale at the Company's Office at Winnipeg, and at the various land agencies of the Canadian Pacific Railway Company.

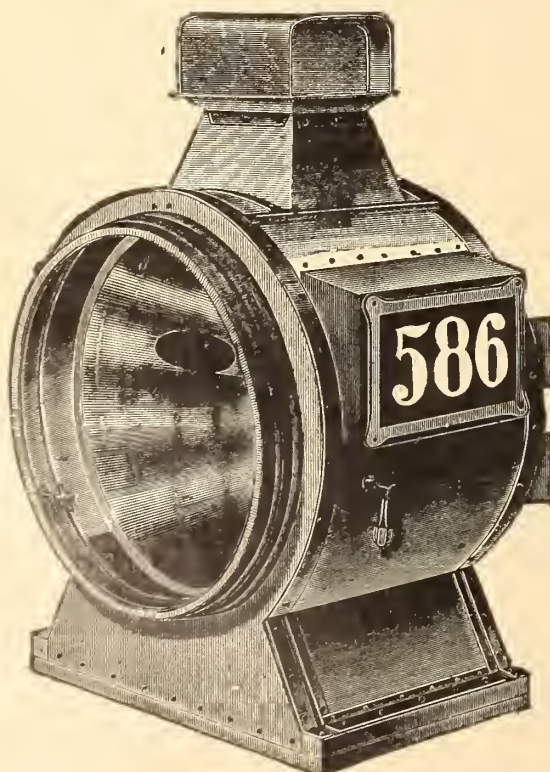
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SIGNALS

NOTICE is hereby given that The James Bay Railway Company will apply to the Parliament of Canada, at its next session, for an act authorizing the company to change its name and empowering it to lease, purchase, or otherwise acquire the lines of the Quebec, New Brunswick and Nova Scotia Railway Company and to amalgamate with the company; also to extend and define the powers of the company with respect to the issue of bonds, debentures and other securities; and for power to construct the lines of railway below mentioned; also empowering the company to lease to The Canadian Northern Railway Company its lines or leased lines or any of them, and to give that company running powers thereover.

The lines above referred to are the following:—

- (1) From a point on the company's line south of Lake Muskoka, thence easterly to Montreal, passing through or near Ottawa, with branches to Ottawa and Hawkesbury.
- (2) From a point on or near the French River, thence easterly to Montreal, passing through or near Ottawa, with branches to Ottawa and Hawkesbury.
- (3) From a point on the company's line at or near Sudbury, thence westerly and south of Lake Nipigon to a point on the Canadian Northern Railway west of Port Arthur, passing through or near Port Arthur, or with a branch to Port Arthur.

Z. A. LASH,

Solicitor for applicant.

Dated December 8th, 1904.

Bing—The railway companies are brazen robbers!

Bung—Quite so. They don't even take the trouble to cover their tracks.

C.P.R. Earnings, Expenses, Etc.

Gross earnings, working expenses, net profits, increases or decreases over 1903, from July 1, 1904:—

Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July \$4,398,833.95	\$2,949,181.81	\$1,449,652.14	\$131,125.02+
Aug. 4,474,237.64	2,946,307.21	1,527,930.43	93,827.93+
Sept. 4,220,876.03	2,952,068.47	1,268,807.56	66,541.75+
Oct. 4,743,961.93	3,177,848.02	1,566,113.91	87,913.10—

\$17,837,909.55 \$12,025,405.51 \$5,812,504.04 \$203,581.60+
Approximate earnings for Nov., \$4,659,000 against \$4,058,000, for Nov., 1903.

The mileage was increased to 8,455 miles in the first week, and to 8,568 miles in the last ten days of the month. **DULUTH, SOUTH SHORE AND ATLANTIC RY.**—Gross earnings for Oct., \$230,156.19; net earnings, \$66,823.85, against \$233,636.04 gross and \$73,285.15 net for Nov., 1903. Net earnings for four months ended Oct. 31, \$336,045.48, against \$364,325.25, for same period, 1903. Approximate earnings for Nov. \$221,384 against \$185,270 for Nov., 1903.

MINERAL RANGE RY.—Approximate earnings for Nov., \$62,875, against \$46,453 for Nov., 1903.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Oct., \$938,096.67; net earnings \$504,817.44, against \$802,550.14 gross and \$454,613.75 net for Oct., 1903. Net earnings for four months ended Oct. 31, \$1,542,327.28, against \$1,455,014.88 for same period 1903. Approximate earnings for Nov., \$914,884, against \$759,625 for Nov., 1903.

Canadian Pacific Railway Land Sales.

	Acres.	Amount.	
	1904-05	1903-04	1904-05
July..	36,425.75	267,647.32	\$177,473.94
Aug..	15,669.90	263,339.45	88,735.88
Sept..	16,470.02	60,441.12	73,642.96
Oct..	23,792.84	270,616.23	104,843.47
Nov..	23,392.88	146,687.83	112,261.70
	115,751.39	848,908.65	\$756,957.95

Grand Trunk Ry. Earnings, Expenses, &c.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1904.	1903.	Increase.	Decrease.
July.....	\$3,013,149	\$3,192,608	....	\$179,459
Aug.....	3,108,137	3,201,511	....	93,374
Sept.....	3,182,972	3,274,245	....	91,273
Oct.....	3,174,437	3,222,750	....	48,313
Nov.....	3,044,324	2,923,000	119,324	....
	\$15,523,019	\$15,816,114	....	\$293,095

TRAFFIC RECEIPTS OF THE SYSTEM.

The following figures are supplied from the London, Eng., office:

GRAND TRUNK RY. CO.

Revenue for Oct.:	1904.	1903.	Increase.	Decrease.
Gross receipts	\$321,700	\$316,600	\$5,100	....
Working expenses	351,500	347,200	4,300	....
Net profit....	\$170,200	\$169,400	\$800	....

Aggregate from July 1 to Oct. 31:

	1904.	1903.	Increase.	Decrease.
Gross receipts	\$2,108,500	\$2,148,400	....	\$39,900
Working expen.	1,405,800	1,446,300	....	40,500
Net profit....	\$702,700	\$702,100	\$600	....

GRAND TRUNK WESTERN RY. CO.

Revenue for Oct.:	1904.	1903.	Increase.	Decrease.
Gross receipts	\$107,600	\$119,300	....	\$11,900
Working exp's	90,800	104,900	....	14,100
Net profit....	\$16,800	\$14,600	....	\$2,200

Aggregate from July 1 to Oct. 31:

	1904.	1903.	Increase.	Decrease.
Gross receipts	\$348,800	\$400,400	....	\$51,600
Working expenses	315,200	360,100	....	44,900
Net profit....	\$33,600	\$40,300	....	\$6,700

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.

Revenue for Oct.:	1904.	1903.	Increase.	Decrease.
Gross receipts	\$23,000	\$25,900	....	\$2,900
Working expenses	18,900	19,800	....	900
Net profit....	\$4,100	\$6,100	....	\$2,000

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from July 1 to Oct. 31:	1904.	1903.	Increase.	Decrease.
Gross receipts	\$110,500	\$99,400	\$11,100	....
Working expenses	77,600	70,400	7,200	....
Net profit....	\$32,900	\$29,000	\$3,900	....

Aggregate from July 1 to Nov. 31:

	1904.	1903.	Increase.	Decrease.
Grand Trunk..	\$2,611,704	\$2,629,058	....	\$17,354
G. T. Western	441,114	501,014	....	59,900
D. G. H. & M.	133,841	199,814	\$14,027	....
Total....	\$3,186,659	\$3,249,886	....	\$63,227

C.P.R. Betterments, Construction, Etc.

St. John Harbor.—Surveys have been made in St. John, N.B., harbor, for a bridge from near the Union Station to the C.P.R. property near Carleton ferry slip. A suggestion is also made that the city should join in the work and construct a bridge for pedestrian, carriage and electric railway traffic, as well as for railway trains.

Place Viger Yard Extension.—The proposal to close up certain streets within the area of property purchased by the C.P.R. for the extension of its yards at Place Viger, Montreal, has been before the city council on several occasions recently, but no definite action was taken. Until this is done it is impossible for the company to decide as to how it will proceed with the work. Protests have been served on a number of aldermen to prevent them voting upon the question, on behalf of an owner whose property was not purchased by the C.P.R.

Ottawa, Northern and Western Ry.—Application will be made next session of the Dominion Parliament for an act extending the period within which this company may commence and complete the construction of its projected lines from Shawville, Que., across the Ottawa River to Pembroke, Ont.; from Waltham, Que., to Sault Ste. Marie, Ont.; and from Waltham northwesterly. These are lines projected under the charter of the Pontiac Pacific Junction Ry., which was amalgamated with the O.N. and W. Ry. prior to the transfer to the C.P.R.

Kaladar Spur.—Surveys have been made for the construction of a spur line from Kaladar Station, Ont., northwesterly for about seven miles, to serve a number of mining properties in the townships of Kaladar and Elzevir.

Toronto Tracks.—The C.P.R. has been authorized to expropriate a strip of land on the Esplanade, Toronto, from Yonge St. to Berkeley St., sufficient to make its right of way 52½ ft. wide, the same as that of the G.T.R., and to carry its tracks across streets on the land so acquired.

Woodstock to Brantford.—Local reports at Brantford, Ont., state that it is proposed to construct a line from Woodstock to Brantford, Ont., and that it will be built under the charter of the South Ontario Pacific Ry. This company was incorporated in 1896 to construct a line from Woodstock to Hamilton, Ont., and has been given extensions from time to time, the last being for five years in 1902.

Sudbury Improvements.—Plans are being prepared for new station buildings, freight sheds, engine house, and coal sheds at Sudbury, Ont., and it is expected that work will be commenced early in the spring.

Fort William to Winnipeg Double-Tracking.—A number of contractors have been going over the line between Fort William, Ont., and Winnipeg, Man., with a view of tendering on the grading for the double-track work. It is proposed to let the work in three sections from Fort William to Ignace, Ont., 148 miles; from Ignace to Rat Portage, Ont., 145 miles; and from Rat Portage, Ont., to Winnipeg, Man., 133 miles. A consideration in letting the contracts will be the time in which the work of rock cutting, earth cutting and filling, etc., can be accomplished.

Western Line Improvements.—During the past year ballasting was done on 1,317.4 miles, the mileage for the different sections being: Fort William, 148.4; Ignace, 145.5; Rat Portage, 132.8; LaRivière, 92; Napinka, 41.5; Souris, 94.5; Brandon, 87; Gretna, 13.7; Teuton, 18; Carman, 12; Emerson, 66; Broadview, 131; Moose Jaw, 83; Portal, 144; Swift Current, 98; Prince Albert, 10. In the same sections there was relaid with 80-lb.

steel, 275.25 miles; 203.05 miles of 73-lb. steel, and 352.25 miles of 72-lb. steel, the lighter rails being used for side tracks, etc. Additional siding accommodation to the extent of 152.28 miles, including 76.13 miles at terminal points, was added in the same sections during the year. In connection with the grading for the track revision at points west of Winnipeg, the work for the year shows that considerable has been done, and that a good deal has yet to be done to complete the work.

Winnipeg Improvements.—The subway carrying the C.P.R. tracks across Main St., Winnipeg, has been completed, and was formally handed over to the city early in Dec. Satisfactory progress has been made with the station building, and it is expected that it will be ready for moving into by the end of Jan. At the freight yards the two new freight sheds have been completed, and the office building was expected to be finished by the end of Dec. The two freight sheds are each 1,284 ft. long by 40 ft. and 60 ft. wide respectively, and have a combined floor space of over three acres. In the yards there had been laid, when work ceased for the year, about 106 miles of tracks. The locomotive and car shops, which have been in construction during the year, were expected to be completed and ready for occupancy by the end of the year.

Manitoba Branches.—The C.P.R. has given notice that it will apply next session of the Dominion Parliament for an act extending the time within which it may complete the following authorized lines:—(1) from the Deloraine extension of the Souris branch, at or near Deloraine, southwesterly to township one or two, thence westerly for 100 miles; (2) from near Napinka, on the Souris branch, westerly to a junction with the northwest extension of the Souris branch; (3) from the Manitoba Southwestern Colonization Ry., between Manitou and Pilot Mound, southerly to or near the International boundary; (4) from the Souris branch between Lauder and Menteith, easterly and northeasterly to between Glenboro and Treeshank, on the Glenboro extension of the Souris branch; (5) from near Osborne, on the Pembina Mountain branch, westerly and southwesterly to the Manitoba Southwestern Colonization Ry., between Cartwright and Boissevain; (6) from at or near West Selkirk, northerly about 60 miles, through ranges three or four, east to the west shore of Lake Winnipeg, thence northwesterly to the Little Saskatchewan River, distant not more than six miles from Lake Winnipeg.

Darlingford Branch.—Grading has been completed for 6½ miles southerly from Darlingford, on the Pembina Mountain branch. Track will be laid in the spring, and a further extension is contemplated.

Brookdale Branch.—The extension of this branch from its present terminus to Varcoc, on the old Great Northwest Central Ry., will, it is expected, be completed during the year. When work ceased for 1904, grading for about 20 miles of the extension had been completed.

Pheasant Hills Branch.—The Dominion Inspecting Engineer, W. McCarthy, recently inspected the extension of this line from mileage 136 from Kirkella, Man., to the present track end at mileage 146.7, and recommended that the same be opened for traffic. An order of the Railway Commission was subsequently obtained, and a train service has been placed in operation. We are advised that it is proposed to extend the branch for a further distance of 20 miles during the year.

Calgary and Edmonton Ry.—The Dominion Parliament next session will be asked to extend the time within which branch lines may be constructed, and amending sec. 6 of

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the act of 1903, so that it will authorize the construction of a branch starting at Wetaskiwin, Alta., and running eastward for 100 miles, instead of easterly in the line of townships numbered 47.

Grading has been completed for 25 miles on the branch from Wetaskiwin, easterly, and also for a similar distance on the branch from Lacombe, Assa., easterly. Track will be laid during the year.

Columbia and Western Ry.—Application will be made next session of the Dominion Parliament for an act extending the time within which the company may construct the railway and branches authorized.

Grade Revision at Rogers Pass.—We are advised that the recent press reports to the effect that the work of revising the grade near Rogers Pass, B.C., was to be undertaken immediately, are not correct. While the work will no doubt be undertaken some time, it is not at present under serious contemplation.

Vancouver and Lulu Island Ry. In reference to the reports that this line is to be leased to the B.C. Electric Ry., and operated as an electric line, we are advised that a suggestion to electrify it has been made and is under consideration.

Duluth, South Shore and Atlantic Ry.—U.S. press reports state that a project is under consideration to extend the line from Duluth, westerly to Thief River Falls, Minn., and then through North Dakota, about midway between the Great Northern Ry. and the International boundary. Another report states that the line will operate a through service to Winnipeg, running over the old Duluth and Winnipeg Ry. to Foston, under the terms of an old contract. About seven miles from Foston a junction would be effected with the recently completed line to Emerson of the Minneapolis, St. Paul and Sault Ste. Marie Ry. W. Whyte, Second Vice-President C.P.R., stated in Winnipeg that nothing of the kind was contemplated.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—In connection with the opening of the extension of the line to the International boundary at Emerson, Man., and the inauguration of a through train service between St. Paul and Winnipeg, the probability of the erection of a union station at Emerson is under discussion. The lines interested would be the C.P.R., the M., St. P. and S.S.M. Ry., the Canadian Northern Ry., and the Great Northern Ry., U.S.

McLeod to San Francisco. The St. Paul, Minn., Globe recently published a statement that the C.P.R. was having surveys made for a line from McLeod, Alta., through Montana, with a view of having a line to San Francisco, Cal. W. Whyte, Second Vice-President, stated at Winnipeg that the C.P.R. had no reason for building a line to San Francisco, that it had its hands full in Canada at present, and that the story must be a mistake on somebody's part.

The B. Greening Wire Co., Hamilton, Ont., has issued its annual calendar for 1905. A glance at the illustration of the works shows that there has been an enlargement during 1904, the works now occupying half a block on both sides of Queen St., between Peter and Napier streets. The company is issuing a series of catalogues, one for each separate department of the works. The first of the series is for wire cloth and perforated metals, and is complete in every detail. It contains an engraving with a rule on it showing how cloth is measured, and also an engraving showing how screening is measured, these being published with a view of enabling customers to order correctly. Other catalogues are in preparation, and any of them can be obtained on application.

Canadian Northern Ry. Construction.

The C.N. Ry. Co. has given notice that it will apply next session of the Dominion Parliament for an act extending the time fixed for the construction of the uncompleted portions of its railway, and authorizing it to lease or acquire running powers over the Great Northern Ry. of Canada, the Chateaugay and Northern Ry., the Irondale, Bancroft and Ottawa Ry., the Quebec, New Brunswick and Nova Scotia Ry., and the James Bay Ry., or any of them, or to purchase such lines or any of them, or to amalgamate with such lines or any of them.

The Great Northern Ry. of Canada will apply next session of the Dominion Parliament for an act authorizing it to lease or otherwise acquire the lines of the Chateaugay and Northern Ry., the Quebec, New Brunswick and Nova Scotia Ry., or either of them; and also empowering it to lease its lines to the Canadian Northern Ry., or to the James Bay Ry., or to give either of these companies running powers over its lines; also for the purpose of confirming an issue of consolidated bonds of the company; and authorizing the construction of a line from near Grand Mere, Que., to its terminals in Quebec city, and a branch to the Quebec Bridge.

The James Bay Ry. Co. has given notice that it will apply next session of the Dominion Parliament for an act authorizing it to change its name, and empowering it to acquire the lines of the Quebec, New Brunswick and Nova Scotia Ry.; also to extend and define the powers of the company with respect to the issue of bonds, debentures, and other securities; also empowering the company to lease its lines or leased lines, and to give the company running powers thereover; also to construct the following additional lines: from the line now under construction, south of Lake Muskoka, easterly to Montreal, passing through or near Ottawa, with branches to Ottawa and Hawkesbury, Ont.; from or near French River easterly to Montreal, passing through or near Ottawa, with branches to Ottawa and Hawkesbury, Ont.; from the company's line at or near Sudbury, thence westerly and south of Lake Nipigon to the C.N.R., west of Port Arthur, passing through or near Port Arthur, with a branch to Port Arthur.

A Question of Nomenclature.

We are at one with the Toronto Globe in the assertion that it is very desirable that a correct practice should grow up in naming the new transcontinental railway, but we do not concur in the Globe's argument that whatever may be the name of the line, it should not be the Grand Trunk Pacific Ry., because "there is no such road either existent or contemplated." A reference to the Statutes of 1903 will show that on Oct. 24 of that year the Governor-General assented to an act incorporating a company with the title of the Grand Trunk Pacific Ry. Co., authorized to construct a railway from Moncton, N.B., to the Pacific ocean. On the same day there was assented to an act "Respecting a National Transcontinental Ry.," in the preamble of which it was affirmed that such a railway, wholly in Canada, and extending "from ocean to ocean," was a necessity, and confirming an agreement dated June 29, made with Sir C. Rivers Wilson and others on behalf of the G.T.P. Ry. Co.—which at that time was non-existent—for the construction of a line from Moncton to Winnipeg, by the "Commissioners of the Transcontinental Ry.," at the cost of the Dominion of Canada, and the Western Division from Winnipeg to the Pacific coast by the G.T.P.

Ry. Co., on its own account, with the aid of a guarantee of bonds by the Dominion. There is not a section or clause of this latter act giving the Government or any Commissioners power to construct any railway whatever; and the only power which the Government or its Commissioners have to construct any railway is by virtue of its agreement with the G.T.P. Ry. Co., under which a contract is made to construct the Eastern Division of the line which the G.T.P. Ry. Co. was incorporated to build. It will, therefore, be seen that there is a projected Grand Trunk Pacific Ry., to extend from Moncton to the Pacific coast, the eastern section of which, by agreement, is to be constructed by and at the cost of the Dominion of Canada, and the western section by the company. The ordinary custom of naming a railway after the corporation building it will not very well apply here, although during the construction period it may be convenient to use the name Grand Trunk Pacific Ry. for the Western Division, and the National Transcontinental Ry. for the Eastern Division.

The whole is to be operated as a single line by the G.T.P. Ry. Co., which the Globe describes as "a corporation which has entered into a contract with the Dominion Government to build the Western Division of the National Transcontinental Ry., and to operate both the Western and the Eastern Divisions as a single line." Again, to follow the usual practice of naming railways, a line, including leased lines and lines otherwise acquired, takes the name of the operating company. In this case the name would be the Grand Trunk Pacific Ry., and not the National Transcontinental Ry. Under any circumstances the latter name would be unsuitable, because the line to be constructed will neither be national or transcontinental, "from ocean to ocean," as mentioned in the act. It will not be national either in construction or operation, and it cannot be transcontinental, "from ocean to ocean," as the point of commencement, Moncton, is some miles from the shore of Northumberland Strait, in one direction, and is some miles up the Petitcodiac River, which runs into Shepody Bay, which is an inlet off Chibucto Bay, which is at the head of the Bay of Fundy, an inlet off the Atlantic ocean.

Rapid Locomotive Construction.

An interesting and important example of the possibilities of modern shop equipment and methods is furnished by the record of construction of 20 locomotives recently built at the Schenectady works of the American Locomotive Co., for the C.P.R. They were of the consolidation type, weighing in working order 186,000 lbs., with 20 x 28 in. cylinders. The construction was necessarily complicated, as they were all equipped with super-heaters of a new design. The contract was closed in Montreal under a guarantee that the first two locomotives were to be shipped within 30 days (Sundays included) from the date of the contract, and the balance at the rate of two each working day thereafter until the order was completed. This schedule was carried out exactly. The locomotive company had practically no material in stock, and it was necessary to order the principal items, which was done either by telephone or telegraph, on the day the contract was made. Special mention should be made of the boiler, fire-box, and tank plates, which were ordered by telephone on the day the contract was placed, the formal order, with details, reaching the manufacturers the following day. All of the principal plates were shipped within five days from receipt of the formal order. The shops of the American Locomotive Co. began work on the plates six days after the contract was placed, and the first boiler was in the erecting shop on

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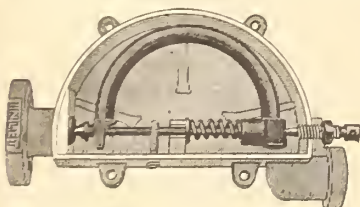
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CANADA AND MICHIGAN BRIDGE AND TUNNEL COMPANY.

NOTICE is hereby given that the Canada and Michigan Bridge and Tunnel Company will apply to the Parliament of Canada, at the next ensuing session thereof, for an Act to extend the times limited for the commencement and completion of the works authorized by the Acts relating to the Company, and for other purposes.

Dated this 29th day of November, 1904.

KINGSMILL, HELLMUTH, SAUNDERS & TORRANCE,
Solicitors for the applicants,
19 Wellington St. West, Toronto, Ont.

the 17th day. The patterns for the steel castings were in the Montreal shops of the locomotive company. These were sent by express the day after the contract was placed, arriving at the foundry the next day, and were in the sand the same afternoon. The first shipment of steel castings, which included frames, wheel centres, etc., was made six days after receipt of the patterns, and the entire order was completed in 12 days. The locomotives are exact duplicates of C.P.R. locomotive 1602, built by the Locomotive and Machine Co. of Montreal, an illustration of which appeared in our Dec. issue. The general dimensions are:—Cylinders, 21 in. diameter; 28 in. stroke; drivers 57 in.; wheel base driving 15 ft. 10 in.; total, 24 ft. 4½ in.; weight on drivers, 162,658 lbs.; total, 186,335 lbs.; tank capacity, 5,000 imperial gallons; weight of tender with coal and water, 122,180 lbs.

Railway Equipment Notes.

The Minneapolis, St. Paul and Sault Ste. Marie Ry. has ordered 14 passenger cars.

The Intercolonial Ry., we are advised, is not at present in the market for any additional equipment.

The G.T.R. has placed orders for 2,000 G.T. standard 30 ton capacity box cars with two companies in the U.S., for use on its lines in the U.S.

ment three first-class vestibuled coaches, four second-class vestibuled coaches, and two baggage and mail cars, for the Temiskaming and Northern Ontario Ry.

The Quebec Central Ry. has placed an order with Rhodes, Curry & Co., Amherst, N.S., for 50 box cars, 60,000 lbs. capacity, for delivery during the current month. The cars will be 36 ft. long, 8 ft. high and 8 ft. 6 in. wide, inside measurement, and will be fitted with Westinghouse air brakes.

The Michigan Central Rd. has ordered 15 locomotives from the Locomotive and Machine Co., of Montreal, for delivery during the spring and summer. Fourteen are to be of the company's standard type of consolidation freight locomotives, and one will be a Pacific type passenger locomotive.

The G.T.R. has contracted with the Safety Car Heating and Lighting Co., New York, for the lighting of 1,200 of its cars with Pintsch gas, and for the erection of a sufficient number of gas manufacturing plants to care for the needs of the G.T.R., and the projected G.T. Pacific Ry. A plant will be erected at Toronto.

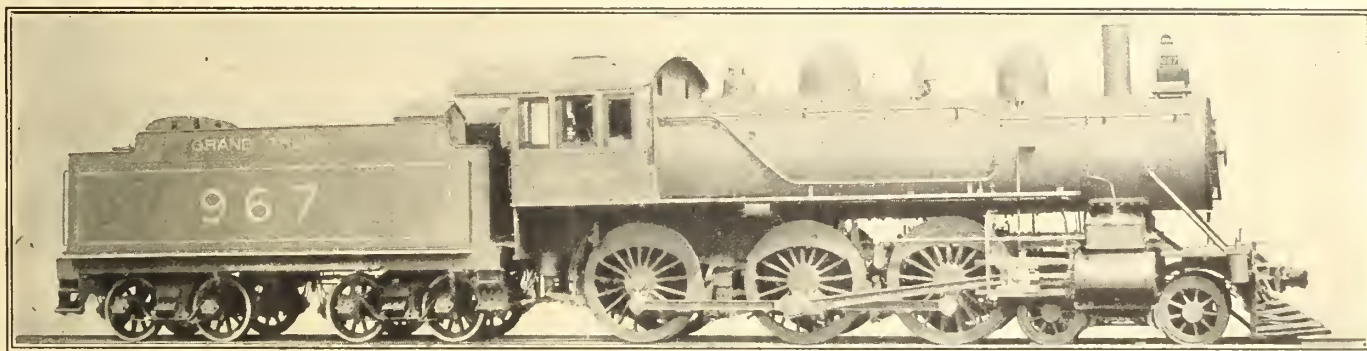
The Canadian Northern Ry. is having 10 freight locomotives of the 10-wheel type, similar to the five of which general dimensions are given below, built by the Locomotive and Machine Co. of Montreal, for spring delivery

eter 2 ins.; length, 13 ft. 2½ ins.; fire-box, 114 x 42 ins.; tank capacity, 5,000 Imperial gallons, 10 tons coal; weight in working order on drivers, about 126,000 lbs.; weight on leading truck, about 31,000 lbs.; total, about 157,000 lbs.

The C.P.R., between Oct. 20 and Dec. 12, added the following to its equipment: four freight locomotives from the Canadian Locomotive Co., Kingston, Ont.; six freight locomotives from the Canada Foundry Co., Toronto; eight freight locomotives from the Locomotive and Machine Co. of Montreal; two switching locomotives, six first-class cars, 123 box cars from its Angus shops; 25 refrigerator cars from its Perth shops; 12 vans from its Farnham, Que., shops; 18 ore cars and two wrecking cranes from the U.S.

The Canadian Northern Ry. has received two 10-wheel passenger locomotives from the Locomotive and Machine Co., Montreal. The locomotives have the following general dimensions:—Cylinders, 18 x 24 ins.; drivers, 62 ins.; boiler, 58 ins. diameter, 200 lbs. pressure; Tubes, no. 248, diameter 2 ins.; length, 13 ft. 2½ ins.; firebox, 103 x 42 ins.; tank capacity, 5,000 Imperial gallons, 10 tons coal; weight in working order on drivers, about 103,000 lbs.; weight on leading truck, about 34,800 lbs.; total, about 137,800 lbs.

The Quebec and Lake St. John Ry. has placed an order for a mogul Richmond compound freight locomotive with the Locomo-



TEN-WHEEL LOCOMOTIVE BUILT BY THE AMERICAN LOCOMOTIVE CO. AT SCHENECTADY FOR THE G.T.R.

The James Bay Ry. has ordered 200 standard 30-ton flat cars and four standard conductors' cabooses, from the Crossen Car Manufacturing Co., Cobourg, Ont.

The G.T.R., between Nov. 12 and Dec. 10, added four Richmond compound locomotives, one 10-wheel passenger locomotive, and 57 refrigerator cars to its equipment.

The C.P.R. has ordered 30 ten-wheel freight and passenger locomotives of its 1300 class from the Locomotive and Machine Co., Montreal. Delivery is to begin May 1.

The Winnipeg Electric Street Ry. has recently added to its equipment a double-truck rotary snow plow and cleaner, built by the Crossen Car Manufacturing Co., Cobourg, Ont.

The Canadian Locomotive Co., Kingston, Ont., has under construction for the Intercolonial Ry., 10 consolidation locomotives, three switching locomotives, and 12 passenger locomotives.

The C.P.R., between Oct. 20 and Dec. 12, placed orders for the following additional equipment:—25 colonist cars and one snow-plough, at its Angus shops; 20 colonist cars and two wrecking cranes, in the U.S.

The Halifax and Southwestern Ry. has ordered 100 standard 30-ton box cars, 50 standard 30-ton flat cars and four standard conductors' cabooses from Rhodes, Curry & Co., Amherst, N.S., for delivery in the spring.

The Crossen Car Manufacturing Co., Cobourg, Ont., has completed and ready for ship-

The Intercolonial Ry. received the following equipment between Nov. 15 and Dec. 15: three 6-wheel switching locomotives from the Canadian Locomotive Co., Kingston, Ont.; four baggage cars and 120 15-ton hopper cars from Rhodes, Curry & Co., Amherst, N.S. With the exception of one baggage car, all the above equipment is to replace equipment destroyed, etc.

The G.T. Pacific Ry. Co. has given a contract to the Canada Car Co., Montreal, for a portion of its contemplated equipment, including both passenger and freight cars, and work will be commenced under this contract at the completion of the C.C. Co.'s works, probably in Aug. next. The daily press report that a contract had been made for 15 cars a day for five years is incorrect.

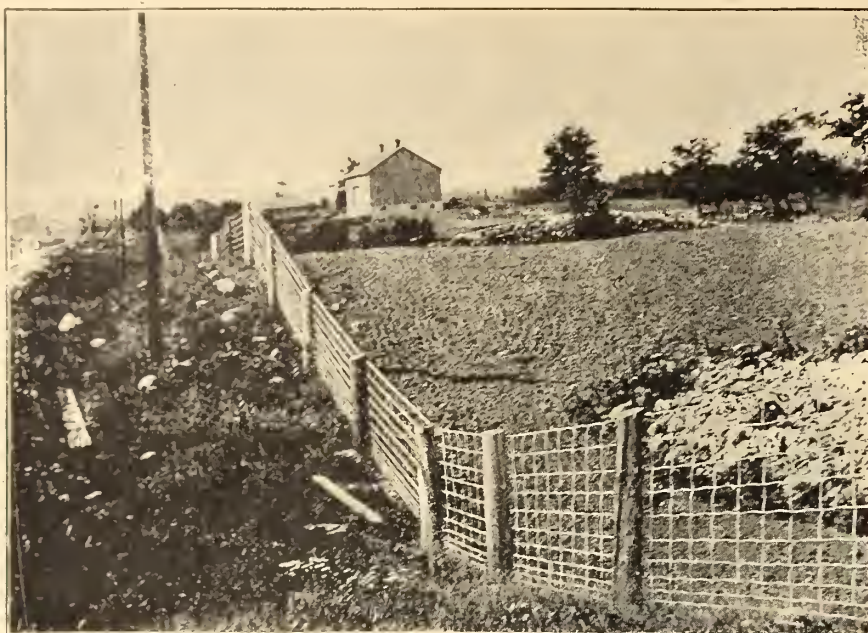
The Crossen Car Manufacturing Co., Cobourg, Ont., has received the following orders since Sept. 1:—Four parlor cars, four second-class sleeping cars, four postal and baggage cars, and 50 box cars, 60,000 lbs. capacity, for the Intercolonial Ry.; 200 flat cars, 60,000 lbs. capacity, and four cabooses, for the James Bay Ry.; one first-class coach and one baggage and mail car, for the Central Ontario Ry.

Following are the general dimensions of five 10-wheel freight locomotives recently delivered to the Canadian Northern Ry., by the American Locomotive Co.:—Cylinders, 20 x 26 ins.; drivers, 63 ins.; boiler, diameter 66 ins., pressure 200 lbs.; tubes, no. 308, diam-

eter 2 ins.; length, 13 ft. 2½ ins.; fire-box, 114 x 42 ins.; tank capacity, 5,000 Imperial gallons, 10 tons coal; weight in working order on drivers, about 126,000 lbs.; weight on leading truck, about 31,000 lbs.; total, about 157,000 lbs. The locomotives will be fitted with Westinghouse air brakes.

The Dominion Coal Co. has placed an order in the U.S. for 150 all steel hopper bottom coal cars of 100,000 lbs. capacity for its Sydney and Louisburg Ry. The cars will be of standard design, excepting that the drop bottoms will be specially arranged to meet existing conditions at the company's shipping piers. The general dimensions are: extreme length over drawbar, 33 ft.; extreme length over end of body, 31½ ft.; width, 10 ft. 2 in.; height, 10 ft. The cars are to be ready for service at the opening of the St. Lawrence season of navigation.

The Canadian Northern Ry. has recently added to its equipment 500 box cars and 25 refrigerator cars, built by Rhodes, Curry & Co., Amherst, N.S. The box cars are built to the standard dimensions of the American Railway Association, and the refrigerator cars have the same outside dimensions. In the interior arrangements a departure has been made from the general practice in regard to the heater spaces. An exterior door at diagonally opposite sides and ends of the car



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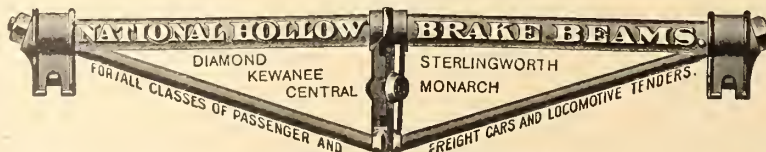
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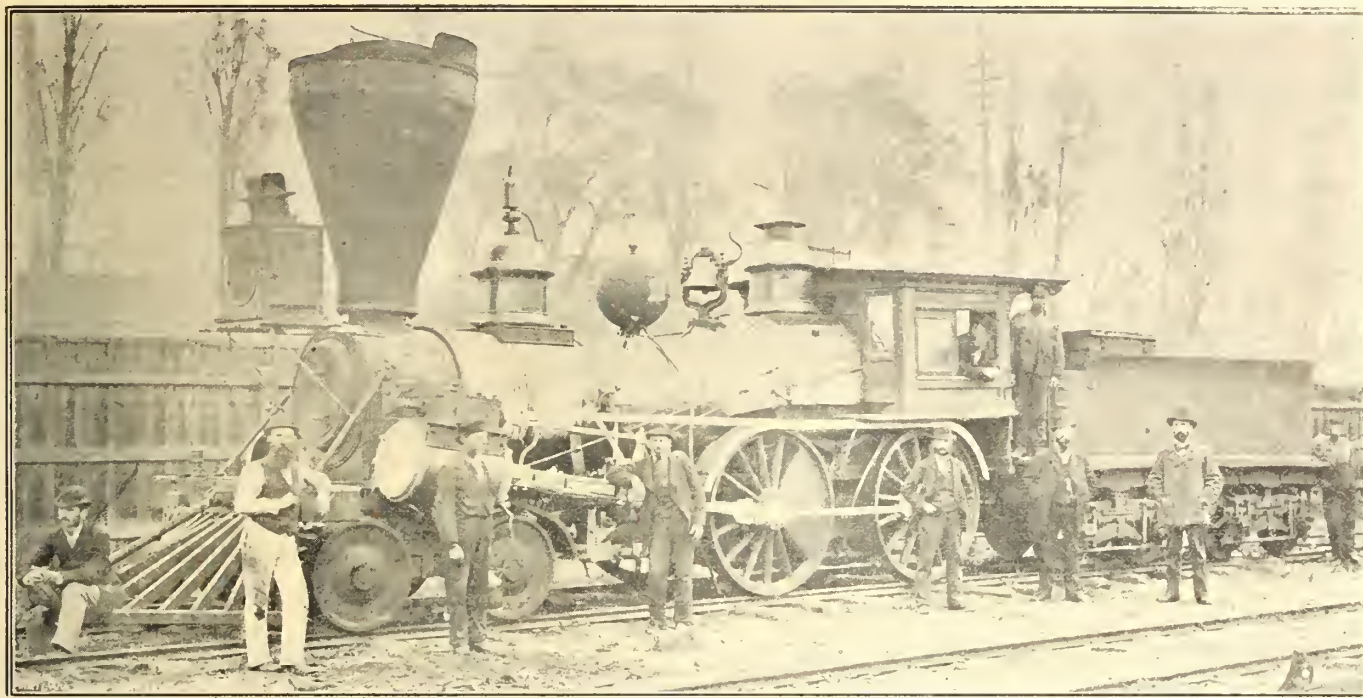


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THE FIRST LOCOMOTIVE BUILT IN TORONTO, IN 1853, BY JAMES GOOD, FOR THE ONTARIO, SIMCOE AND LAKE HURON RY., NOW G.T.R.

allows a double economy heater to be placed under the ice tank. This section is fire-proofed with galvanized iron and asbestos. By this arrangement the usual heater cages in the body of the car are done away with and a much more serviceable car for general freight obtained.

The 10 consolidation locomotives for the Intercolonial Ry., which the Canadian Locomotive Co. is building at Kingston, Ont., have the following general dimensions:—

Weight in working order, drivers.....	148,300 lbs.
" " " " total.....	164,850 lbs.
Wheel base of engine, rigid.....	15 ft. 3 ins.
" " " " total.....	23 ft. 6 ins.
" " " " and tender.....	54 ft. 5 ins.
Length over all, engine and tender.....	65 ft. 1 in.
Width " " " " " ".....	10 ft. 2 ins.
Height " " " " " ".....	14 ft. 6 3/4 ins.
Heating surface, firebox.....	162 sq. ft.

Heating Surface, tubes.....	1,934 sq. ft.
total.....	2,096 sq. ft.
Diameter of driving wheels.....	56 in.
Material of driving wheel centres.....	main, cast steel, others cast iron
Diameter and length of driving journals.....	8 in. x 12 in.
of cylinders.....	21 ft.
Stroke of cylinders.....	28 ft.
Type of boiler.....	radial stayed
Working pressure of boiler.....	200 lbs.
Number of tubes.....	236
Diameter.....	2½ ins.
Length.....	11½ ins.
Brakes.....	Westinghouse
Kind of packing.....	metallic
Weight of tender, loaded.....	120,000 lbs.
Capacity of tank in imp. ga lons.....	5,000 gallons
Style of tank.....	U shaped, sloping coal well
Coal capacity.....	10 tons
Style of truck.....	diamond, all steel
Diameter of wheel.....	34 ins.
Kind of wheel.....	wrought iron centre, steel tire
Diameter and length of journal.....	5½ in. x 10 in.
Bra ke beam.....	steel

The Intercolonial Ry. is having 12 Pacific type passenger locomotives built by the Canadian Locomotive Co., Kingston, Ont., with the following general dimensions:—

Weight in working order, drivers	126,000 lbs.
" " " total	187,000 lbs.
Wheel base of engine, rigid	12 ft. 7 in.
" " " total	31 ft. 6 in.
" " and tender	57 ft. 10 in.
Length over all, engine and tender ..	67 ft. 0½ in.
Width " " " "	10 ft. 3 in.
Height " " " "	15 ft. 0 in.
Heating surface, firebox	162 sq. ft.
" " tubes	2,584 sq. ft.
" " total	2,746 sq. ft.
Grate area	45-75 sq. ft.
Diameter of driving wheels	72 ins.
Material " " centres	cast steel
Diameter and length of driving journals ..	9 in. x 12 in.
" " of cylinders	21 ins.
Stroke	28 ins.
Type of boiler	wide firebox, radial stayed
Working pressure of boiler	200 lbs.



THE LATEST LOCOMOTIVE BUILT IN TORONTO, 1904, BY THE CANADA FOUNDRY CO., FOR THE C.P.R.

Number of tubes 232
 Diameter " 2 1/2 ins.
 Length " 19 ft.
 Brakes Westinghouse, American high speed
 Kind of packing metallic
 Weight of tender, loaded 120,000 lbs.
 Capacity of tank in imp. gallons 5,000 gallons
 Style of tank water bottom
 Coal capacity 10 tons
 Style of truck 4 wheel, steel bolster
 Diameter of wheel 36 ins.

Kind of wheel wrought iron centre, steel tire
 Diameter and length of journal 5 1/2 in. x 10 in.

The C.P.R. has placed an order for 10 consolidation locomotives with the Canadian Locomotive Co., Kingston, Ont., and would have placed a larger order if the company had been in shape to make deliveries at the time required, its capacity being practically en-

JAMES THOMSON, President. JAMES A. THOMSON, Secretary. JOHN GARTSHORE, Treasurer. J. G. ALLAN, Vice-President.

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86-92 Ann Street, Montreal, Can.

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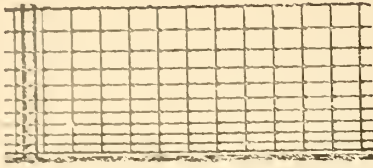


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ESTABLISHED 1854

No. 107. Nov. 12. Quebec 287. Gulf of St. Lawrence, Anticosti, light ship removed from her station to winter quarters.

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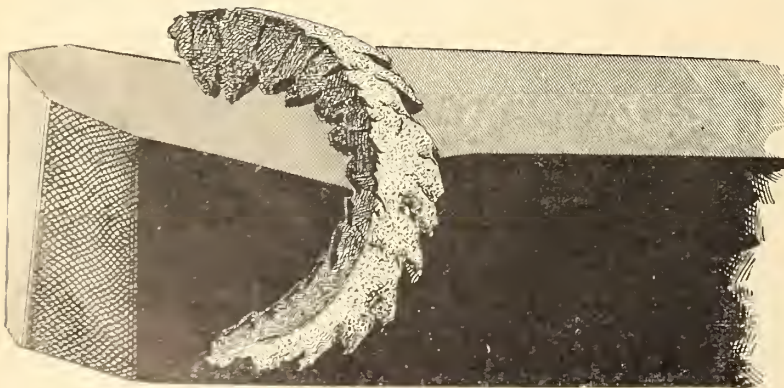
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No. 110. Nov. 22.—Ontario—294. River St. Lawrence, Lake St. Francis, St. Francis middle ground light improved. 295. River St. Lawrence, foot of Cornwall canal, St. Regis dyke, range lights improved. 296. River St. Lawrence, west of Galops canal, north channel dyke, light improved.

No. 111. Nov. 23.—Nova Scotia—297. Cape Breton Island, Mabou, front range light mast carried away.

No. 112. Nov. 23.—British Columbia—299. Fraser River, New Westminster, railway swing bridge, lights and regulations. 300. Burrard Inlet, first narrows, changes in beacons. 301. Vancouver Island, east coast, Baynes Sound, Village Point, change in character of buoy. 302. Vancouver Island, west coast, Clayoquot sound, Browning passage, buoys established. 303. Vancouver Island, west coast, Clayoquot sound, Hectate passage, buoys established.

No. 113. Nov. 25.—New Brunswick—304. South coast, Bay of Fundy, Cape Enrage, lighthouse rebuilt. 305. Miramichi River, northwest branch, light established on bridge.

No. 114. Nov. 26.—Nova Scotia—306. West coast, Bay of Fundy, Grand Passage, north point of Brier Island, fog bell established at lighthouse.

No. 116. Nov. 29.—Nova Scotia—309. Strait of Northumberland, Pictou harbor, light in custom house changed.

No. 117. Nov. 30.—Ontario—313. Lake Ontario, Toronto harbor, Gibraltar point, fog alarm discontinued. 314. Lake Superior, north shore, Jack Fish Bay, information.

No. 118. Nov. 30.—Quebec—315. Gulf of St. Lawrence, Magdalen Islands, Byron Island, lighthouse established. 316. Gulf of St. Lawrence, Gaspé bay, entrance to Gaspé basin, lighthouse established on Sandy Beach point, lightship withdrawn.

No. 119. Nov. 30.—Nova Scotia—317. Strait of Northumberland, Pictou Island, west end, lighthouse established.

The following have been issued by the U.S. Hydrographic Department:—

No. 46. Nov. 12.—Lake Superior—1615. North shore, Jack Fish Bay, information.

No. 49. Dec. 3.—Lake Ontario—1700. New York, Charlotte harbor, dredging, depths.

Niagara Navigation Co.'s Meeting.

E. B. Osler, M.P., presided at the annual meeting in Toronto, Dec. 13. The report for the year ended Nov. 30, which was dated Dec. 1, and issued over the signature of the late Jno. Foy, President, said:—Although the season has admittedly been a poor one for transportation lines in general, this company has carried forward a substantial balance as a result of the year's operation. The net profit of the year, after paying interest on bonds, was \$62,765.57, and after providing for dividends of 8% there remains \$14,365.57 to carry forward to profit and loss. The str. Chicora has undergone extensive reconstruction, at a cost of \$21,499.02, which has been charged against profit and loss. Her classification and valuation has in consequence been materially raised. The accident to the machinery of this steamer, caused by the breaking of a piston rod, almost at the end of the season, is fully covered by insurance. After providing for dividends, interest on debentures and reconstruction of str. Chicora, the balance to credit of profit and loss is \$88,139.60.

ASSETS.

Steamers Chippewa, Corona, Chicora and Ongiara.....	\$707,500.00
Real estate, wharves, etc.....	50,000.00
Stores on hand.....	1,414.33
Accounts receivable.....	2,628.93
Cash on hand and in bank.....	69,954.06
	\$831,497.32

LIABILITIES

Capital Stock authorized, \$1,000,000.00	
Capital Stock subscribed and paid up... \$605,000.00	
Debentures outstanding, 4½%.....	111,000.00
Interest accrued on same.....	2,081.25
Accounts payable.....	1,076.47
Dividend 4% payable Jan. 3rd, 1905....	24,200.00
Balance carried forward.....	88,139.60
	\$831,497.32

PROFIT AND LOSS ACCOUNT

12 months' interest on debentures.....	\$ 4,995.00
Dividend 4% paid July 2, '04 \$24,200.00	
Dividend 4% payable Jan. 3, 1905.....	24,200.00
	48,400.00
Steamer Chicora, reconstruction.....	21,499.02
Balance carried forward.....	88,139.60
	\$163,033.62
Balance forward.....	\$ 95,273.05
Net earnings from all sources.....	67,760.57
	\$163,033.62

In moving the adoption of the report, E. B. Osler referred to Jno. Foy's death and testified to the great value his services had been to the company. W. Hendrie, in seconding the motion, spoke very feelingly about Mr. Foy, who, he said, had been a great favorite with everybody, and particularly with the Board, and whose death he considered a great loss to the company. On motion of E. B. Osler, it was resolved that the shareholders desire to put on record their deep regret at the removal from among them by death of Jno. Foy, who as Manager, and afterwards as President, had been connected with the company since its organization, and to whose able direction and advice the company very largely owed its success, and that a copy of this resolution be sent to his family.

Resolutions of thanks to the directors, and to the Manager and staff were passed, the latter being acknowledged by B. W. Folger. Acton Burrows, scrutineer, reported the election of the following as directors:—J. J. Foy, E. B. Osler, W. Hendrie, J. B. Macdonald, Barlow Cumberland, R. H. McBride, C. Cockshutt. Mr. Cockshutt was elected in place of the late Jno. Foy, the others being re-elected. The Board elected E. B. Osler President, and re-elected Barlow Cumberland Vice-President.

Canadian Steamers Classified

The number of steamers registered in Canada on Dec. 31, 1903, was 2,410, having a gross tonnage of 338,251 tons. An examination of the list shows that of these 2,021 were built in Canada, 275 in the United States, and 75 in Great Britain, and of the remainder some details are wanting in order to classify them properly. They include ten built in Canada, seven in the U.S., and two in Great Britain, in regard to which the year of building is not given; four built in Hong Kong, one each in Sweden and Norway, and fourteen in regard to which neither the date of building nor the country where built is given. Of the 2,371 of which full details are given, the following table shows the year when built, and whether in Canada, the U.S., or Great Britain. It would be interesting to know when the British or U.S. built vessels were placed on the Canadian register.

Year.	Canada.	Great Britain.	United States.	Total.
1903.....	97	2	3	102
1902.....	113	5	9	127
1901.....	106	1	9	116
1900.....	109	1	11	121
1899.....	87	1	5	93
1898.....	107	3	17	127
1897.....	96	0	3	99
1896.....	73	1	8	82
1895.....	69	1	3	73
1894.....	80	1	3	84
1893.....	82	4	15	101
1892.....	76	0	3	79
1891.....	76	2	10	88
1890.....	80	5	7	92
1889.....	66	5	5	76
1888.....	72	7	12	91
1887.....	65	1	8	74
1886.....	69	1	7	77
1885.....	45	1	5	51

Year.	Canada.	Great Britain.	United States.	Total.
1884.....	51	2	10	63
1883.....	47	5	2	54
1882.....	40	1	6	47
1881.....	37	4	8	49
1880.....	35	2	7	44
1879.....	27	1	7	35
1878.....	25	0	4	29
1877.....	15	2	5	22
1876.....	18	0	5	23
1875.....	18	3	7	28
1874.....	23	0	14	37
1873.....	17	1	9	27
1872.....	20	0	4	24
1871.....	14	3	5	22
1870.....	15	1	6	22
1869.....	7	1	5	13
1868.....	10	0	4	14
1867.....	7	1	5	13
1866.....	6	0	0	6
1865.....	3	1	4	8
1864.....	5	3	5	13
1863.....	2	0	5	7
1862.....	3	0	4	7
1861.....	2	1	1	4
1859.....	1	0	0	1
1856.....	1	1	0	2
1846.....	1	0	0	1
1845.....	1	0	0	1
1844.....	1	0	0	1
2021.....	75	275	2371	

The tonnage of 2,407 out of the 2,410 steamers on the list is given. Of these over 1,800 are under 100 tons gross, and they include not only tugs, fishing steamers and small trading steamers on the inland lakes and rivers, but a large number of pleasure craft. A large proportion of the vessels built in the U.S. and borne on the Canadian register belong to the class of pleasure steamers of less than 10 tons gross, while the British built steamers figure largely among the big bulk freighters. A classification according to tonnage shows:

Under 10 tons gross.....	548
Over 10 and under 50 tons gross.....	951
“ 50 “ 100 “.....	338
“ 100 “ 200 “.....	198
“ 200 “ 300 “.....	96
“ 300 “ 400 “.....	57
“ 400 “ 500 “.....	44
“ 500 “ 600 “.....	32
“ 600 “ 700 “.....	23
“ 700 “ 800 “.....	20
“ 800 “ 900 “.....	19
“ 900 “ 1000 “.....	20
“ 1000 “ 1500 “.....	23
“ 1500 “ 2000 “.....	22
“ 2000 “ 2500 “.....	6
“ 2500 “ 3000 “.....	5
“ 3000 “ 4000 “.....	4
“ 4000 “ 5000 “.....	1

2407

A New Hydraulic Suction Dredge

The hydraulic suction dredge which is being constructed for the Department of Public Works, by the Polson Iron Works, Toronto, is in many respects similar to the J. Israel Tarte, built by the same company in 1902. The principal dimensions are: length over all, 127 ft.; breadth, 32 ft.; depth at side, 9 ft.; draft, 5 ft. The hull will be of scow model, with square bow and rake stern, for the purpose of towing easily. It is to be constructed of mild steel, divided into bulkheads, and fitted with bunkers to have a capacity of 100 tons of coal. The main deck will be of 3 x 4 in. B.C. pine; the upper deck of 2 in. B.C. pine; and there will also be a light shade deck over the hoisting engine. A cabin for officers and crew will be provided; it will be steam heated. Two boats are also to be supplied with the dredge.

The machinery will consist of a direct acting, inverted, triple compound, three crank, surface condensing engine having cylinders 14, 22, and 36 ins. diameter by 21 in. stroke, and built for a working pressure of 160 lbs. a square inch, and is calculated to develop 600 I.H.P., when running at 100 revolutions a minute. The main dredging pump will be a centrifugal one, with the suction and discharge pipes 24 in. in diameter, and the feed and bilge pumps will consist of two independent horizontal, duplex, crank packed plunger pumps 7½ by 4½ by 15 ins. The hoisting engine for raising and lowering

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Burlington Elevator, St. Louis, Mo.	Capacity	1,300,000 Bushels
Grand Trunk Elevators, No. 2 and No. 3, Portland, Me.	"	2,500,000 "
Export Elevator, Buffalo, N.Y.	"	1,000,000 "
J. R. Booth Elevator, Depot Harbor, Ontario	"	1,000,000 "
Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	"	1,000,000 "
Erie R. R. Transfer & Clipping House, Chicago, Ill.	"	100 cars in 10 hrs.
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	"	1,500,000 "
Burlington Elevator Co., Peoria, Ill.	"	500,000 "
Canada Atlantic Railway Elevator, Coteau Landing, Que.	"	500,000 "
Northern Grain Co., Manitowoc, Wis.	"	1,350,000 "
Union Elevator, East St. Louis, Ill.	"	1,100,000 "
Montreal Warehousing Co.'s Belt Conveyor System		

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the suction pipe and swinging the boom will be located on the main deck forward, and will be a 10 by 12 in., two-cylinder, double acting, independent type engine, with link motion to allow operation in either direction. The steel boom for raising and lowering the suction pipe will be located at the suction end of the dredge, and will be about 65 ft. in length. The suction pipewill have an internal diameter of 24 inches, and will be fitted with a cutter head at the outer end. To excavate the material there will be a rotary steel cutter. The steel head of this will be of suitable shape, and will have attached to it a renewable steel block of such a shape that it will convey the material taken from the bed of the river into the pipe. The outside diameter of the head is to be large enough to enclose the whole of the mouth of the pipe. This head will be driven by a steel shaft carried along the whole length of the pipe, and receiving its power from a separate engine, by suitable steel gearing. The engine to supply this power will be a two-cylinder, double acting, horizontal engine, 12 by 12 in. stroke, arranged to run in one direction only. The discharge pipe will also be 24 ins. in diameter, and will be arranged for discharging the material into scows. The capstans will be operated by two 6 by 8 in. double acting engines, which are to be located on the main deck forward of the hoisting engine. Steam will be supplied to the various engines by two marine return tubular boilers, built to pass Lloyd's Survey, and to satisfy the requirements of the Canada Marine Act, and to have a working pressure of 160 lbs. to the square inch. They will be 12 x 12 ft. 6 in., and will have 3 furnaces, each 35 in. diameter, and a grate surface in each boiler of 48 sq. ft. There will be two smoke stacks, each 42 ft. in height from centre of boiler. The dredge, in every way, is to be built to pass Lloyd's survey, and to the requirements of the Department in regard to details not specifically specified. The dredge is expected to be completed early in the season, and is intended for service on the St. Lawrence channel between Montreal and Quebec.

Maritime Provinces and Newfoundland.

The str. Kilkeel, engaged in carrying coal from Port Hood, N.S., to Gulf ports, is now owned by Capt. W. B. Nevin, who has purchased the interests of the other shareholders of the company.

The Eastern Steamship Co., of Boston, Mass., proposes to construct two turbine steamers for 1906, one of which will be placed on the route between Boston, Mass., Eastport, Me., and St. John, N.B.

The str. Neptune, which was chartered by the Dominion Government for service in Hudson's Bay, has been given a thorough overhaul at Halifax, N.S., before being returned to her owners in Newfoundland.

The str. Pokonoket, recently purchased in Philadelphia, Pa., by the Star Line Co., has reached St. John, N.B., and will undergo some alterations during the winter. She will be put on the route between St. John and Fredericton in the spring.

The wreckage of a steamer, supposed to be the Donald, trading between Nova Scotia and Northumberland Strait ports, has been washed ashore near New London, P.E.I. The Donald left Marble Mountain, Bras d'Or Lakes, Nov. 12, for Chatham, N.B., and has not been heard of since.

The Dominion Coal Co. has completed the erection of a coal wharf at St. John, N.B. It is 300 ft. long, with an average width of 80 ft. The coal pocket to be erected on the wharf will be 240 ft. long, 30 ft. wide, and about 16 ft. high, for storage purposes, and on the top will be the special gear for unloading vessels.

Tide tables for Halifax, N.S.; St. John, N.B.; Quebec, and Father Point, Que., for 1905, with tidal differences for Nova Scotia, the Bay of Fundy, the Gulf and River St. Lawrence, and information on the currents, have been issued by the Tidal and Current Survey branch of the Department of Marine.

The Schooner Invictus Co. (Ltd.) has been incorporated under the Dominion Companies' Act, with a capital of \$18,752 and offices at Wolfville, N.S., to carry on a general navigation business. The provisional directors are: N. V. Munro, R. W. Elliott, L. D. Shaffner, of Bridgetown, N.S.; R. Lee, of Weston, N.S.

The directors and officers of the Hampstead Steamship Co. are: President, L. A. Curry; Vice-President, R. K. Jones; Secretary, Capt. F. S. Mabce; other directors, J. M. Inch, and J. H. Poole. The directors reported that the past season had been a very successful one. The offices of the company are at Oak Point, Kings County, N.B.

The Dominion Coal Co. is reported to be preparing to submit a proposition to the Dominion Government to subsidize a line of coal boats to operate on the St. Lawrence, through the canals and up the lakes. The Nova Scotia Government will also be asked, according to the report, to assist the project by remitting part of the royalty of 12c. a ton on coal.

The negotiations for the purchase of a new steamer in England for the Canada Atlantic and Plant Line fell through, the steamer proposed not coming up to expectations. It is expected that a steamer will be chartered in the U.S., pending the consideration of plans for a new steamer to be built in England. The plans, under consideration, show a steamer 50 ft. longer than the Halifax.

The Inverness Coal and Ry. Co. has purchased the str. Turret Bell, which has just completed repairs and a general overhauling at Halifax. The Turret Bell is a steel screw steamer of the turret deck type, built at Sunderland, Eng., 1894, having the following general dimensions: length, 297 ft.; breadth, 40 ft.; depth, 21 ft. 7 in.; tonnage—gross 2,211 tons, register 1,376 tons. She is fitted with triple expansion engine, cylinders 22½, 36½ and 60 in. diam. by 42 in. stroke, of 233 n.h.p.

Province of Quebec Shipping.

J. G. Noel has been appointed a measuring surveyor of shipping for the port of Montreal.

The coal shipments landed in Montreal for the season of navigation of 1904, totalled 1,401,611 tons.

British shipping papers, in recent articles, state that the pilotage conditions prevailing on the St. Lawrence river are such as to cause the high insurance rates prevailing there.

In the investigation into the grounding of the str. Catalone, on Longueuil shoal in Aug. last, it was found that the accident was caused by the failure of the steam steering gear.

The Black Diamond Line str. Louisburg went ashore at Three Rivers, Que., recently, but was got off without serious damage. At the investigation subsequently held by Commander Spain, Pilot N. Arcand, who was in charge, was fined \$60, and censured for his gross carelessness in navigating the vessel at the time of the grounding.

The Canadian Turbine Propulsion, Power and Light Co. has been incorporated under the Quebec Companies' Act, with a capital of \$500,000 and offices in Montreal, to acquire patents and manufacture turbine engines for marine and other purposes. W. Rowbotham, H. Levetus, of Toronto; M. Auerbach, N. P. Bryant and H. H. Hull, of Montreal, are the provisional directors.

Figures compiled by the Montreal Board of Trade show that the movement of grain

for export for the 1904 season of navigation was considerably less than in 1903. Up to Nov. 1, 1904, the latest date to which the figures have been published, there were handled for export 6,500,000 bush. of wheat, 3,500,000 bush. of corn, 149,000 bush. of peas, 1,150,000 bush. of oats, 400,000 bush. of barley, and 2,102,105 bush. of rye, a total of 13,792,105 bush. against 21,912,535 bush. for same period, 1903.

The Exchequer Court, sitting at Quebec, recently gave judgment in the case of the Richelieu and Ontario Navigation Co., against the Black Diamond Line, arising out of the sinking in June, 1904, of the str. Canada after being in collision with the Cape Breton. The court found that both steamers were to blame and ordered that the damage should be borne equally by each, and that an account be taken by the Registrar to ascertain the amount to be borne by each company. It will be remembered that Capt. Salmon, prior to his resignation as Wreck Commissioner, decided that the Canada was alone to blame for the collision, and made certain orders respecting the certificates of officers. The Department of Marine declined to approve of the findings, and another enquiry may be held.

The second of the ice-breaking steamers ordered by the Dominion Government for the St. Lawrence, has reached Quebec. She was built in Scotland, the principal dimensions being: Length, 245 ft.; breadth, 40½ ft.; depth, 18 ft., with a gross tonnage of about 1,350 tons. The vessel is specially strengthened in order to resist pressure, the shell plating at bows and in other parts being of double thickness, with intermediate frames extending fore and aft. The keel, stem, sternpost, propeller, brackets and rudder are extra strong and heavy, and made of nickel steel. On the sternpost a cast-steel knife is fitted to break ice when working astern, and to protect the rudder. She is propelled by twin screws, and is expected to develop a high rate of speed. The steamers will be used to prevent the formation of the ice bridge at Cap Rouge, and to make a way for steamers through ice, if necessary, to get them to sea. The project for trying to lengthen the period of navigation to Montreal has been abandoned for the season.

Ontario and the Great Lakes.

The Richelieu and Ontario Navigation Co. was awarded a grand prize for its exhibit at the St. Louis Exhibition.

The wooden str. Pease, owned by Gilchrist & Co., Cleveland, Ohio, was burned at Collingwood, Ont., recently, and is a total loss.

The str. North King, belonging to the Lake Ontario and Bay of Quinte Steamboat Co., will undergo considerable repairs during the winter.

The Niagara-Welland Power Co. will apply next session of the Dominion Parliament for an act authorizing it to use the canal which it has power to construct for navigation purposes.

A special meeting of the shareholders of the Northern Navigation Co. was held at Collingwood, Ont., Dec. 20, for the purpose of sanctioning a by-law changing the head office from Collingwood to Toronto.

Press reports state that the Department of Marine is going to order two ice-breaking steamers for Lake Superior, to be ready for use next season; one of them will be stationed at Port Arthur and the other at Fort William, Ont.

The St. Lawrence and Chicago Steam Navigation Co. has declared a dividend for half-year, ended Dec. 31, of 3%, making with the 5% paid July 1, a dividend of 8% for 1904. The company paid a 10% dividend in 1903.

The str. Turbinia, running between Hamilton and Toronto, has been laid up at Hamilton for the winter. She will undergo some alterations so as to enable water ballast to be substituted for the present metal ballast.

The C.P.R. ferry str. Armstrong, which recently sank in the St. Lawrence between Ogdensburg, N.Y., and Prescott, Ont., has been raised, and will be repaired at Ogdensburg.

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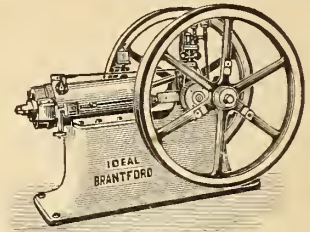
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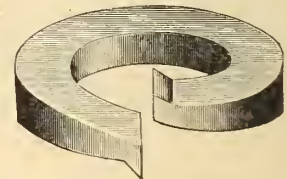


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Press reports state that there is every prospect of the New York Central Ry. securing complete control of the Folger boats on the St. Lawrence River, and that it will operate them next year solely in connection with the train service.

The Dominion Government proposes to take up with the U.S. the question of the appointment of an International Commission to consider the effect of power development works and other enterprises, upon the level of international waters along the boundary.

An Ottawa despatch states that the tonnage passing through the canals in 1904 was over 9,000,000 tons, against 7,000,000 in 1903, and that the canal tolls, had they not been abolished at the instigation of the Dominion Marine Association, would have amounted to over \$325,000.

The Dominion Government str. *Aberdeen* left Quebec Dec. 2 for Toronto, where she was to have new boilers installed. On the way she became fast in the ice in one of the locks of the Lachine canal, but was relieved a few days afterwards, and was finally laid up for the winter in the Soulanges canal.

The Dominion fishery protection cruiser *Vigilant*, built at the Polson Iron Works, Toronto, made 17.46 knots an hour on her trial trip, 1.46 knots over the contract speed. The steamer made a tour of Lake Ontario, the Minister of Marine being on board, and has been laid up for the winter at Walkerville.

The Hamilton Steamboat Co. has declared a dividend of 10% for the past year, the same as in former years. The season for 1904 was extended to Dec. 7, when the *Macassa* ceased running. On the following day she left Hamilton for Collingwood, Ont., where a section of 36 ft. is to be added amidships, and the whole interior arrangements are to be altered.

An effort is being made in the Parry Sound district to obtain capital to start a new navigation company to trade on Georgian Bay. The proposed capital is \$100,000 in \$1 shares, and press reports state that a large proportion of this has been promised. It is proposed to have two steamers, to steam from 16 to 18 miles an hour, one to run between Parry Sound, Midland and Penetanguishene; and the other from Parry Sound to up-lake points. Capt. A. Clark is one of the principal promoters.

The Michigan Central Rd. is having completed a new car ferry to ply between Detroit, Mich., and Windsor, Ont. The new ferry is named the *Detroit*, and has the following general dimensions: length, 308 ft.; breadth, 64 ft.; depth, 19½ ft. She is equipped with three tracks and will carry 28 cars. She is fitted with four independent screws, two at each end, each operated by compound engines 24 and 48 in. diameter by 33 in. stroke, steam being supplied by two double-ended boilers, 13 by 12 ft.; and two single-ended boilers 13 by 11½ ft.

The case in which the Midland Towing and Wrecking Co., Midland, Ont., brought action against certain insurance companies for their proportion of the surveyor's award of damage to the tug *Reliance*, which sank in Georgian Bay in Sept., 1903, has come to an end. On being raised a survey was held, at which the underwriters and the owners were represented and an agreement reached placing the damage at \$21,500. Three of the companies paid, three objected to the award and one refrained from paying its proportion. Action was taken against the companies, but before the case came up for trial, they agreed to judgment with costs being entered.

The str. *Ocean* is considered to be almost a total loss from the effects of a fire which took place on board recently. She was in dry dock at Port Dalhousie, Ont., being dismantled, prior to being given a thorough overhaul,

when the fire was discovered. Water was let into the dock, and into the hold, but the upper works were totally destroyed. The *Ocean* traded between Montreal and St. Catharines, calling at a number of intermediate ports. She was a wooden, screw freight and passenger steamer, and was built at Port Dalhousie in 1872, for the Wentworth Navigation Co., Toronto. Her dimensions were: length, 137 ft.; breadth, 23.3 ft.; depth, 11.7 ft.; tonnage—gross, 684 tons; register, 454 tons. She was fitted with engines of 100 h.p.

Complaint was recently made that there was a lack of vessels to carry grain from Fort William, Ont. A. A. Wright, Toronto, in reply to the statement, pointed out that Canadian grain carrying steamers for lack of cargoes at Fort William were, at the time mentioned in the daily papers, carrying iron ore or grain from U.S. ports. This occurred during the last weeks of Oct. and the first weeks of Nov., and at the end of Nov. shippers were complaining that they were offered two Canadian boats for every cargo they had to ship from Fort William. The reason for the increasing of the stock of grain in the elevators at the period named, Mr. Wright states, is certainly not due to the lack of first-class Canadian vessels to move the grain. At the final close of navigation the elevators at Port Arthur and Fort William were practically empty.

Manitoba and Northwest Territories.

The Dominion Government has been making enquiries for a small steamer suitable for use as a supply and patrol boat for the stations of the Northwest Mounted Police on Mackenzie River, and the shores of the Arctic Ocean near the mouth of that river.

Hon. R. R. Roblin, in a recent speech at Winnipeg, pointed out the importance to Manitoba of a port on Hudson's Bay, and suggested that the boundaries of the Province should be extended so as to give it such a port. With that obtained he felt sure that the railway connection would be immediately constructed and a large trade be built up.

B.C. and Pacific Coast Shipping.

The floating dry dock on the Fraser River, at New Westminster, B.C., is being offered for sale.

The Department of Marine proposes to establish a fog alarm at Cape Beale, and a lighthouse at Sehl's Point, B.C.

No offers to purchase the disused ferry str. *Surrey* have been made to the New Westminster City Council, and she will be laid up for the winter.

Tide tables for Victoria, B.C., and Sand Heads, Strait of Georgia, for 1905, have been issued by the Tidal and Current Survey branch of the Department of Marine.

The C.P.R. proposes to keep open its steamer route on Kootenay Lake, between Kaslo and Iardo, B.C., and will transfer the str. *Victoria* from Trout Lake, to act as an ice-breaker when necessary.

The Department of Public Works had a number of men employed during the past fall clearing the channel of the Kootenay River from the Landing to the International boundary. The work was in charge of Hon. F. W. Aylmer.

The whaling steamer built at Christiania, Norway, for Capt. R. Baleom, Victoria, B.C., has been launched and was named *Orion*. She is 100 ft. long, about 35 tons net, and will be engined to steam 14 knots an hour. She was expected to leave Norway by the end of Dec., and to reach Victoria in April.

The str. *Venture* has been purchased to replace the wrecked str. *Boscowitz*, and will be re-engined and fitted for the accommodation

of passengers, before she is put on the route. She was built at Dundee, Scotland, 1899, her dimensions being: length, 248 ft.; breadth, 38 ft.; depth, 17.3 ft.; gross tonnage, 1,330 tons.

The tug *Lorne* has been sold by Jas. Duns-muir to the Puget Sound Tugboat Co., but will continue to operate from Victoria, B.C., under the British flag. Her dimensions are: length, 151 ft.; breadth, 26 ft.; depth of hold, 13.2 ft.; draught, 17.5 ft.; tonnage—gross, 288 tons; register, 159 tons. She is fitted with engines of 114 h.p., capable of making 13½ knots an hour.

The C.P.R. is working out details of a plan by which it will place another steamer on the northern route. The new steamer will, it is said, either be built in the United States, or purchased there, and will have her home port probably at Seattle, Wash., the object being to enable the company to compete for U.S. business to Alaskan points. At present British vessels cannot carry U.S. freight in bond for Alaskan points, although U.S. steamers are permitted to handle freight in bond for Victoria and the Yukon Territory.

R. T. Elliott was appointed a commissioner by the Department of Marine, to enquire into several charges made in relation to the affairs of the Victoria and Esquimalt pilotage district. The inquiry was ordered upon the affidavit of Pilot S. M. Bucknam, who stated that certain sums of money, alleged to have been paid to him between 1893 and 1899, had not been paid. Three other pilots also wrote stating that money alleged to have been paid to them had not been paid. The report of the commissioner will be made to the Department.

Commander Spain has been appointed Commissioner of Wrecks, succeeding Capt. Salmon resigned.

The str. *Mohawk*, belonging to the Central Vermont Ry., was recently burned when on a trip between New York and New London, Conn., and is a total loss. She was valued at \$250,000 and was partially insured.

The Royal Mail Steam Packet Co., now running steamers from Southampton, Eng., to ports in the West Indies, proposes tendering for the service subsidized by the Canadian Government between Halifax and the West Indies. This contract, now held by Pickford & Black, Halifax, N.S., expires during 1905.

The Department of Marine has had under consideration a proposal for the regulation of harbor boards and harbor tolls throughout the Dominion, and a bill to give effect to the plans of the Minister will be introduced early next session of Parliament. It is reported that one of the changes proposed to be made is that the duties of the Montreal Harbor Commission will be taken over by the Government.

The final arrangements for the putting on of a line of steamers between Vancouver, B.C., and Mexican ports on the Pacific ocean, are being made in Mexico with the Government, by Sir Wm. Mulock, on behalf of the Canadian Government. Negotiations for a service on the Atlantic between Canadian and Mexican ports are also in progress, the terms previously agreed upon not being sufficient to induce vessel owners to tender.

The Allan Line str. *Victorian*, equipped with turbine engines, recently completed at Belfast, Ireland, was reported to have been given a trial trip there Dec. 6, with the result that it was found to be impossible to get up anything like the contract rate of speed. This is the first large steamer to be fitted with turbine engines, and its completion was looked forward to with special interest by trans-Atlantic steamship owners. Sir H. M. Allan, interviewed at Montreal, Dec. 8, said the firm had not received any information of

this kind. The only trial trip of which they had any information was one round Ireland in February.

Press reports state that the Minister of Marine has practically completed plans for the establishment of a naval militia for Canada. The permanent corps will consist of 500 men, 300 of whom will be located on the Atlantic coast, 300 on the Pacific coast, and

200 on the Great Lakes. It is proposed to have three training vessels, one for the Maritime Provinces, one on the Upper Lakes, and one in B.C., on each of which there will be eight instructors, engaged in Great Britain. The militia will be trained for three seasons and will then go into the reserve. At the end of eight years it is expected to have a reserve of 10,000 trained men.

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C. Simpson has been appointed agent Canadian Ex. Co. at Berlin, Ont.

The Canadian Ex. Co. has appointed W. H. Tunmonds its agent at Port Huron, Mich., succeeding W. J. Tallmadge, transferred.

The Canadian Ex. Co. has opened offices at Darlington, Ont.; Causapsal and Lachine Wharf, Que.; Harcourt, N.B.; and Valley, N.S.

The Dominion Ex. Co. has opened offices at Creelman, Fillmore, Forget, Francis, Howard, Kisbey, Osage, Stoughton, Tyvan and Uren, Assa., and at Haileybury and New Liskeard, Ont.

The Montreal branch of the Canadian Manufacturers' Association has passed a resolution to the effect that it is desirable that express companies should be placed within the jurisdiction of the Railway Commission.

The Dominion Ex. Co. has extended its route on the Temiskaming and Northern Ontario Ry. between Redwater and New Liskeard, Ont., and on the C.P.R. Arcola branch from Arcola to Regina, Assa. The routes on the various steamboat lines have been closed for the season.

The Western Ex. Co. has placed its service on the extension of the Minneapolis, St. Paul and Sault Ste. Marie Ry., to the International boundary near Emerson, Man., and has opened offices at Bronson, Clayton, Newfolden, Plummer, Minn.; and Hobson, Wis.

The delays caused in getting express parcels from the U.S. through the customs house, has been considered by the Montreal branch of the Canadian Manufacturers' Association, and a committee was appointed to meet the U.S. express companies affected and the customs authorities to see what could be done to bring about an improvement. The committee subsequently met J. S. Patch, general agent Canadian Ex. Co. and American Ex. Co., Montreal, and the Collector of Customs, and after a full discussion of the matter it was decided to recommend some change in the methods of working, whereby the difficulties will be obviated.

Telegraph and Cable Matters.

The C.P.R. Telegraph Department has completed the installation of its call-box system in Montreal.

The C.P.R. Telegraph Department has opened a city telegraph office in Prince Albert, Sask., from which all commercial business will be transacted.

The further proceedings of the arbitration between the G.T.R. and its telegraphers were adjourned to Dec. 27, when it was expected that the arbitrators would be able to continue sitting until the matter was disposed of.

A messenger service and call-box system has been inaugurated in connection with the G.N.W. Telegraph Co., by the Dominion Messenger and Signal Co. The company's boxes have already been placed in Montreal, Que., and Kingston, Ont.

The Canadian Northern Telegraph Co. has completed stringing an additional wire between Winnipeg and Brandon, Man. The new line runs along the Carberry extension through Portage la Prairie as far as Carberry, thence along the highway to Brandon.

The Marconi wireless telegraph station at Cape Race, Nfld., which was completed in Nov., has been found, on being tested, to respond at a distance of 150 miles. This is one of the stations erected by the Canadian Government in the interests of the St. Lawrence route.

Among the contracts given out in connection with the new Marconi wireless telegraph

station at Port Morien, N.S., is one for digging 27 miles of trench about a foot deep. Each trench will be about 500 ft. in length, and will contain a wire radiating from the main tower.

The condition of the Belle Isle cable was recently found to require such an amount of repair, that it was decided to abandon the attempt to restore communication until the spring. Communication will be maintained during the winter by means of the Marconi wireless telegraph stations.

The C.P.R. Telegraph Department is arranging that all telegraph wires entering the new station at Winnipeg, shall be brought in underground. There will be in the new station and hotel, in addition to the dispatcher's office and a general telegraph office, separate public telegraph offices in the general waiting room and in the hotel.

F. R. Carney, who succeeded N. W. Bethune, as local manager of the G.N.W. Telegraph Co., at Ottawa, Ont., was born at Dubuque, Ohio, Mar. 27, 1872, and has been connected with the telegraph service since his boyhood. He has seen service with the Western Union as manager at several points, and with the Postal Telegraph Co., at Chicago, Ill., as chief of the Delivery and Service Department.

The C.P.R. Telegraph Department has opened offices at Argue, Birnie, Brookdale, Culver, Darwin, Edrans, Fairfax (reopened), Fannystelle, Headingly (night office) Lowe Farm, Marieapolis, Oakland, Roundthwaite (reopened), Treesbank and Winnipeg Beach, Man.; Bears Pass, Cross, Dalton, Falcon, Garwood, Hammond, Helderleigh, Kama, Margach, Mattawin, McMillan, Metagama, North Lake, Oster, Pine, Stratton, Turbine, and Westfort, Ont.

Wireless Telegraphy, Theory and Practice, is the title of a book of 216 pages, by W. Maver, Jr., author of American Telegraphy and Encyclopedia of the Telegraph, and published at \$2 by the Maver Publishing Co., New York. The book deals with early wireless telegraph systems, induction telegraphy, Hertzian waves, electrical wave propagation, syntonics wireless telegraphy; and the wireless telegraph systems of Marconi, Lodge, Muirhead, Slaby-Arco, Braun, Brauly-Popp, Guarini, De Forest, Fessenden and others, and contains a variety of other subjects of interest to electricians, and a chapter on the practical application of, and suggestions on, wireless telegraphy, signalling, etc. The book is divided into 15 chapters, each of which deals with a special section of the whole subject, and the text is illustrated with 123 engravings. In an appendix notes are given explanatory of some of the earlier chapters, which were written before the more recent developments of wireless telegraphy. A copious index completes the volume. While dealing with the subject from the theoretical as well as the practical point of view, it is not too technical for the general reader who desires to obtain an insight into what wireless telegraphy is, and to know something of the apparatus used to transmit messages.

Newfoundland Telegraphs Arbitration.

The arbitration proceedings in connection with the claim of the Reid Newfoundland Co. to recover \$3,500,000 from the Newfoundland Government for damages in connection with the taking over of the telegraph lines from R. G. Reid, and his successor—the company—by the Government, closed at St. Johns, Nfld., Nov. 18, and the arbitrators will sit in Toronto, Jan. 9, to give judgment. The arbitrators are: Hon. E. Blake, K.C., M.P., London, Eng., appointed by the Government; D. MacMaster, K.C., Montreal, representing the Reid Newfoundland Co., and

P. S. Archibald, C.E., Moncton, N.B., appointed by the Supreme Court of Newfoundland. The hearing of evidence and arguments occupied about three weeks. The claim as presented for consideration sets out that R. G. Reid was the contractor referred to in the Railway Contract, 1868. By the Railway (Amendment) Act, 1901, his rights, etc., were transferred to the Reid Newfoundland Co. The claim is based on the following grounds:—The Government under the contract of 1901 has taken back the telegraph lines, the operation of which had been given to R. G. Reid under the contract of 1868, leaving to him only the use of the railway wire and lines, limited as per clause 19 therein; and has agreed to the payment of compensation for all the rights involved in the contract of 1868 and destroyed by the cancellation thereof, as per clause 26, Railway Act, 1901, and as follows: "If the contractor shall claim that, in consequence of the foregoing clauses, 16 to 25 inclusive, he has sustained or suffered, or will sustain or suffer loss or damage, or if the Government shall claim that the contractor has derived or will derive benefit or advantage therefrom, the question of such claim or claims, and of the amount, if any, to which either party shall be entitled as compensation therefor, shall be determined by arbitration, in manner provided by clause 101 of the contract of 1868." The claim hereinafter formulated has been prepared along the lines of

(Continued on page 42.)

PURCHASING AGENTS' GUIDE.

(Continued from third page of Cover.)

Coal Haulage Ropes

The B. Greening Co. Hamilton, Ont.

Concrete

Thorn Cement Co. Buffalo, N.Y.

Concrete Mixers and Rock Crushers

W. H. C. Mussen & Co. Montreal

Contractors' Plant

F. H. Hopkins & Co. Montreal.

T. A. Morrison & Co. Montreal.

W. H. C. Mussen & Co. Montreal.

Conveyor Belts, Rubber

The Gutta Percha & Rubber Mfg. Co. of Toronto.

Cross Arms, Top Pins & Side Blocks

Canadian General Electric Co. Toronto.

The Firstbrook Box Co. Toronto.

Cross Arm Braces

Canadian General Electric Co. Toronto.

Toronto Bolt and Forging Co. Toronto.

Crossing Gates

General Railway Signal Co. Buffalo, N.Y.

The N. L. Piper Railway Supply Co. Toronto.

Crowbars

Toronto Bolt and Forging Co. Toronto.

Culvert Pipe (Cast Iron)

Gardner-Thompson Pipe & Foundry Co. Hapfelton.

Cuts

Acton Burrows Co. Toronto.

Derrick Ropes

The B. Greening Co. Hamilton, Ont.

Derrieks

F. H. Hopkins & Co. Montreal.

Door Signs

Acton Burrows Co. Toronto.

Drawing Materials

Eugene Dietzgen Co. New York.

Dredges

The Bertram Engine Works Co. Toronto.

Drilling Machines

The John Bertram & Sons Co. Dundas, Ont.

Drills

W. Abbott Montreal.

Dry Goods

The Hudson's Bay Company

Dynamo and Electric Castings

American Brake Shoe & Foundry Co., Mahwah, N.J.

Economizers

Babcock & Wilcox Ltd. Montreal.

Electric Car Route Signs

Acton Burrows Co. Toronto.

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dealing separately with two periods of time. It embraces and covers:—(1) The period up to April, 1904, when, under the contract of 1898, the payment of the cash subsidy would cease, and when the monopoly of the Anglo-American Co. would expire, and when, in the nature of things, a new era of telegraphic development would be inaugurated. (2) The period from April, 1904, up to April, 1948, when, under the contract of 1898, the operation and lease of the system by the Reid Newfoundland Co. would terminate.

In support of the claim it was argued for the Reid Co., that this was a claim for compensation and not for damages for breach of contract as contended for by the Government; that the law applicable was what is known as the law of compensation, under which great latitude is allowed to arbitrators in assessing the amount to be paid by a successful litigant, and not the law of damages, in which the amount is somewhat restricted; that the company was entitled to what are known as speculative or future profits, and damages or the potential value of its possession; that it was not a breach of contract, but on the contrary was the fulfilment of a contract made with the Government. The claim includes, amongst other things a claim for special renewals, improvements and construction done by Reid between 1898 and 1901, for cost and value of supplies delivered over to Government, in 1901, for the loss of the subsidy, the value of wire privileges and some other matters, and a general claim for the loss of advantage to the business of the company by having the wires taken from it.

For the Government it was contended that this claim was one for damages for breach of contract and not for compensation; that the Reid Co. never had the right of property in the telegraphs under the 1898 contract, and that the contract of 1901 took nothing away from him because he had nothing in this respect to take; that they could not take back what the company never had and that therefore they could not make this claim. It was argued that the contract of 1901 was merely a modification of the 1898 contract, and that even if it was a claim for compensation the company could only claim up to the time of the bringing of the action and that would amount to practically nothing.

General Telephone Matters.

A telephone line is being strung between Nicola and Penticton, B.C.

The Kingston, Ont., City Council has granted an exclusive franchise for five years to the Bell Telephone Co.

The Edmonton, Alta., City Council has passed a resolution accepting the offer of the Edmonton District Telephone Co., to sell its plant and business for \$17,000, as from Jan. 1.

The proposal of the Stark Telephone, Light and Power Co., Toronto, to instal an independent telephone system in Brantford, Ont., on a 15 year franchise, has been declined by the city council.

Press reports from Ottawa state that the Dominion Government has in contemplation the introduction of legislation for the acquisition by the Government of the trunk lines of telephones and telegraphs.

The Bell Telephone Co. has purchased the independent telephone line between Desbarats, Richard's Landing, Marksville, Sailor's Encampment and Kentvale, Ont. The line includes two miles of cable at Richard's Landing.

The Dominion Supreme Court has granted permission to appeal in the case of Price against the city of Hamilton, which was an action to quash a by-law granting a five years' exclusive franchise in the city to the Bell Telephone Co.

Application will be made next session of the Dominion Parliament for the incorporation of a company with the title of The Northwest Telephone Co., to construct and operate telephone lines throughout Ontario, Manitoba and the Northwest Territories. H. B. McGivern, Ottawa, is solicitor for the applicants.

A rural telephone company is being organized in Waterloo County, Ontario, and there is some effort being made to have the matter taken up by the county council as a municipal enterprise. A few years ago a farmers' telephone company was organized, but it was subsequently absorbed by the Bell Telephone Co.

The Toronto Board of Control has recommended that the independent telephone companies be given a limited time to submit offers to the city council for the installation of a competitive telephone system in the city. The city advertised asking for offers on certain specified terms, but the companies did not respond, stating that the conditions were onerous; hence the changed attitude of the council.

The Stark Telephone, Light and Power Co., of Toronto, has submitted an offer to the Toronto City Council to instal a telephone system in the city. The company offers to supply telephones at a maximum of \$36 a year for business places and \$18 a year for residences; or, if desired, a toll rate for each outgoing call. It asks for a franchise for 21 years, proposes to lay wires underground in the area bounded by Spadina Ave. on the west, Sherbourne St. on the east, and extending to Bloor St. from the lake front, and to locate its pole lines under the supervision of the City Engineer. It will put up bonds, will have its system in operation in 15 months and pay 2½% of its revenue to the city for five years, and 5% for the remainder of its term, the lines, etc., to be subject to purchase by the city at any time on notice being given, or in the event of any agreement tending to destroy competition being discovered with the Bell Telephone Co.

The Imperial Privy Council recently gave judgment in the appeal by the Toronto City Council against the decision of the Canadian courts in its action against the Bell Telephone Co. The question was raised in 1901, whether the company could erect poles and open up the streets without the permission of the municipal authorities. The work on two streets was stopped and a stated case was agreed on which was submitted to the courts. At the first hearing a decision was given in favor of the city, and on appeal by the Bell Telephone Co. this decision was reversed; the city then took the case to the Privy Council, with the result that the company's contention that its Dominion charter over-rides the Provincial charter, in which there is a clause that the company should not carry any poles or wires along any street without the consent of the municipal council, was upheld. The corporation, having this decision before it, is considering the advisability of going to Parliament for power to enable it to prevent the erection of poles and the opening up of streets without its permission.

THE VICTORIA ROLLING STOCK COMPANY OF ONTARIO, LIMITED.

NOTICE is hereby given that a dividend of six per cent. on the paid-up Capital Stock of the Company for the half-year ending 30th November, 1904, has been declared payable 1st December next, to shareholders on record as on the 30th November, 1904.

By order of the Board,

R. A. SMITH, Secretary.

NOTICE is hereby given that the Grand Trunk Railway Company of Canada will apply to the Parliament of Canada, at the next ensuing Session thereof, for the passage of an Act authorizing the Directors of the said Company to acquire and hold, either in the name of the Company or of Trustees, and pledge and dispose of shares of the Capital Stock of the Canada Atlantic Transit Company, incorporated by Chapter 95 of the Statutes of Canada 1898, and of the Canada Atlantic Transit Company, incorporated within the United States of America, and shares of the Capital Stock of the Vermont and Province Line Railway Company, and also to acquire and hold, in the name of the Company or of Trustees, and guarantee, pledge and dispose of shares of the Capital Stock, both common and preferred, and bonds, debentures or other securities of the Canada Atlantic Railway Company.

Dated at Montreal, this 16th day of November, A.D. 1904.

W. H. BIGGAR,

On behalf of the Grand Trunk Railway Company of Canada.

NOTICE.—Application will be made to the Parliament of Canada, at its next session, for an act to incorporate a railway company under the name of the "Georgian Bay and Seaboard Railway Company," with power to construct, operate, and maintain a railway from a point on Georgian Bay between Point Severn and Penetanguishene in a southeasterly direction through the counties of Simcoe, Ontario, Victoria, Peterboro', Hastings, Lennox and Addington, Frontenac and Lanark, or any of them, to a point of connection with the Ontario and Quebec Railway between Cavanville and Maberly, with such powers as are usually given to railway companies incorporated by the Parliament of Canada, and that the said works be declared to be for the general advantage of Canada.

ANDREW T. THOMPSON,
Solicitor for applicants.

Cayuga, 1st December, 1904.

NOTICE is hereby given that at the next session of Parliament, an application will be made by The Canadian Northern Railway Company for an act extending the time for the construction of the company's uncompleted lines of railway; and authorizing the company to lease or acquire running powers over the lines and leased lines of the Great Northern Railway of Canada, and the Chateaugay and Northern Railway Company, and the Irondale, Bancroft and Ottawa Railway Company, and The Quebec, New Brunswick and Nova Scotia Railway Company, and The James Bay Railway Company, or any of them, or to purchase such lines or any of them, or to amalgamate with the said companies or any of them.

Z. A. LASH,
Solicitor for applicant.

Dated 8th December, 1904.

AN application will be made to the Parliament of Canada, at its next session, for an act to incorporate a Railway Company under the name of the London and St. Clair Railway Company, with power to construct, operate, and maintain a railway from a point on the line of the Ontario and Quebec Railway west of London to Sarnia or to some convenient point on the St. Clair River between Sarnia and Lake St. Clair, with such powers as are usually given to railway companies incorporated by the Parliament of Canada, and that the said works be declared to be for the general advantage of Canada.

A. T. THOMPSON,
Solicitor for the applicants.

Cayuga, 1st December, 1904.

PURCHASING AGENTS' GUIDE.

(Continued from page 41.)

Electric Cranes

Canada Foundry Co. Toronto.
 Dominion Bridge Co. Montreal.
 W. H. C. Mussen & Co. Montreal.

Electric Ry. Brake Shoes

American Brake Shoe & F'dry Co., Mahwah, N. J.

Elevator Belts, Rubber

The Gutta Percha & Rubber Mfg. Co. of Toronto.

Enameled Iron Signs

Acton Burrows Co. Toronto.

Engineers' Supplies

The Gutta Percha & Rubber Mfg. Co. of Toronto.
 The James Morrison Brass Mfg. Co. Toronto.

Engines, Hoisting

The Bertram Engine Works Co. Toronto.

Engines, Stationary & Marine

The Bertram Engine Works Co. Toronto.
 Canada Foundry Co. Toronto.
 Polson Iron Works. Toronto.

Engines, Steam

Erie Heating Co. Chicago, Ill.

Engraving

Toronto Engraving Co. Toronto.

Express Office Signs

Acton Burrows Co. Toronto.

Feedwater Heaters

Babcock & Wilcox (Ltd.) Montreal.

Fencing

Canada Foundry Co. Toronto.
 Canadian Steel and Wire Co. Hamilton, Ont.
 Page Wire Fence Co. Walkerville, Ont.

Fire Brick

Garden Sand Co. Chicago, Ill.

Flags

Rice Lewis & Son. Toronto.
 The Hudson's Bay Company.

Flour

The Hudson's Bay Company.

Foghorns

Rice Lewis & Son. Toronto.

Forgings

Crossen Car Mfg. Co. Cobourg, Ont.
 General Railway Signal Co. Buffalo, N.Y.

Gas and Electric Fixtures

The James Morrison Brass Mfg. Co. Toronto.

Gasoline Engines

Goold, Shapley & Muir Co. Brantford, Ont.

Gas Pipe (Cast Iron)

Gartshore-Thompson Pipe & F'dry Co. Hamilton.

Gates

Canada Foundry Co. Toronto.
 Page Wire Fence Co. Walkerville, Ont.

Gauges, Steam and Vacuum, etc.

The James Morrison Brass Mfg. Co. Toronto.

Grain Elevators

John S. Metcalfe Co. Chicago, Ill.

Groceries

The Hudson's Bay Company.

Handcars

Crossen Car Mfg. Co. Cobourg, Ont.

Hardware

Rice Lewis & Son. Toronto.
 The Hudson's Bay Company.

Headlights

N. L. Piper Railway Supply Co. Toronto.

Headlinings

Crossen Car Mfg. Co. Cobourg, Ont.

Heaters

Erie Heating Co. Chicago, Ill.

Heating for Power Plants

Erie Heating Co. Chicago, Ill.

Hose

Rice Lewis & Son. Toronto.

Hose, Air Brake and Steam

The Gutta Percha & Rubber Mfg. Co. of Toronto.

Hose, Fire

The Gutta Percha & Rubber Mfg. Co. of Toronto.

Hose, Suction

The Gutta Percha & Rubber Mfg. Co. of Toronto.

Illustrations

Acton Burrows Co. Toronto.

Injectors

The James Morrison Brass Mfg. Co. Toronto.

Instruments, Surveying & Engineering

Eugene Dietzgen Co. New York.

Interlocking and Signalling

General Railway Signal Co. Buffalo, N.Y.

Interlocking Signals

Montreal Steel Works. Montreal.

Iron

Rice Lewis & Son. Toronto.

Iron and Steel Castings

American Brake Shoe & F'dry Co., Mahwah, N. J.

Iron Signs

Acton Burrows Co. Toronto.

Japans

McCaskill, Dougall & Co. Montreal.

Journal Bearings

Canada Foundry Co. Toronto.
 Crossen Car Mfg. Co. Cobourg, Ont.
 Jas. W. Pyke & Co. Montreal.
 St. Thomas Brass Co. St. Thomas, Ont.

Lager Beer, &c.

E. L. Drewry. Winnipeg.

Lamps, Incandescent

Canadian Westinghouse Co. Hamilton, Ont.

Lamps & Lanterns

Continental Heat & Light Co. Montreal.
 The Hudson's Bay Company.
 Rice Lewis & Son. Toronto.
 N. L. Piper Railway Supply Co. Toronto.

Lathes

The John Bertram Sons Co. Dundas, Ont.

Launches

The Bertram Engine Works Co. Toronto.
 Polson Iron Works. Toronto.

Lights, Contractors and Wrecking

Continental Heat & Light Co. Montreal.
 F. H. Hopkins & Co. Montreal.
 W. H. C. Mussen & Co. Montreal.

Lights, Dock

Continental Heat & Light Co. Montreal.

Lights, Portable

Continental Heat & Light Co. Montreal.

Locomotive Boiler Washer, Automatic

Erie Heating Co. Chicago, Ill.

Locomotive Brass Works

The James Morrison Brass Mfg. Co. Toronto.

Locomotive Driver Brake Shoe

American Brake Shoe & F'dry Co., Mahwah, N. J.

Locomotives (Compressed Air)

American Locomotive Co. New York, N.Y.
 Baldwin Locomotive Works. Philadelphia, Pa.
 Locomotive and Machine Co. of Montreal

Locomotives (Electric)

American Locomotive Co. New York, N.Y.
 Baldwin Locomotive Works. Philadelphia, Pa.
 Canada Foundry Co. Toronto.
 Locomotive and Machine Co. of Montreal

Locomotives (Logging)

Lima Locomotive and Mach. Co. Lima, Ohio.

Locomotives (Rack)

American Locomotive Co. New York, N.Y.
 Baldwin Locomotive Works. Philadelphia, Pa.
 Locomotive and Machine Co. of Montreal.

Locomotives (Steam)

American Locomotive Co. New York, N.Y.
 Baldwin Locomotive Works. Philadelphia, Pa.
 Canada Foundry Co. Toronto.
 Canadian Locomotive Co. Kingston, Ont.
 F. M. Hicks & Co. Chicago, Ill.
 F. H. Hopkins & Co. Montreal.
 Lima Locomotive and Machine Co. Lima, Ohio.
 Locomotive and Machine Co. of Montreal
 The Saxon Engine Works. Chemnitz, Germany.

Locomotive Tile

Garden City Sand Co. Chicago, Ill.

Machine Tools

W. Abbott. Montreal.
 The Saxon Engine Works. Chemnitz, Germany.

Machine Screws, Set, Cap and Planer

John Morrow Machine Screw Co. Ingersoll.

Machinery, Marine

Sheriffs Mfg. Co. Milwaukee, Wis.

Machinery, Mining

The Bertram Engine Works Co. Toronto.

Machinery Repairs

The Bertram Engine Works Co. Toronto.

Machinery Repairs, Marine

Sheriffs Mfg. Co. Milwaukee, Wis.

Manganese Steel Castings

Montreal Steel Works. Montreal.

Manhole Frames and Covers

American Brake Shoe & F'dry Co., Mahwah, N. J.

Mats and Matting

The Gutta Percha & Rubber Mfg. Co. of Toronto.

Mechanical Draft Fans

Babcock & Wilcox (Ltd.) Montreal.

Mailpost Numbers

Acton Burrows Co. Toronto.

Milling Cutters

W. Abbott. Montreal.

Milling Machines

The John Bertram Sons Co. Dundas, Ont.

Mills, Boring and Turning

The John Bertram Sons Co. Dundas, Ont.

Moulding Sand

Garden City Sand Co. Chicago, Ill.

Numbers

Acton Burrows Co. Toronto.

Nuts, Cold Pressed

John Morrow Machine Screw Co. Ingersoll.

Nuts, Square and Hexagon

Canada Foundry Co. Toronto.
 Toronto Bolt and Forging Co. Toronto.

Oakum

Rice Lewis & Son. Toronto.
 The Hudson's Bay Company.

Office Desks

Canadian Office & School Furniture Co., Preston, Ont.

Office Fittings

Canadian Office & School Furniture Co., Preston, Ont.

Office Signs

Acton Burrows Co. Toronto.

Oils

Galena-Signal Oil Co., Franklin, Pa., & Toronto.
 The Queen City Oil Company. Toronto.

Packing

The N. L. Piper Railway Supply Co. Toronto.

Packing, High Pressure Sheet

The Gutta Percha & Rubber Mfg. Co. of Toronto.

Packing, Piston

The Gutta Percha & Rubber Mfg. Co. of Toronto.

Paints, Acid Proof and Anti-rust

American Asphaltum & Rubber Co. Chicago, Ill.

Paints, Asphaltum

American Asphaltum & Rubber Co. Chicago, Ill.

Paints, Bridge

American Asphaltum & Rubber Co. Chicago, Ill.

Paints, Locomotive Front end

American Asphaltum & Rubber Co. Chicago, Ill.

Paints, Mineral Rubber

American Asphaltum & Rubber Co. Chicago, Ill.

Paints, Structural Iron

American Asphaltum & Rubber Co. Chicago, Ill.

Pinch Bars

The N. L. Piper Railway Supply Co. Toronto.

Pipe

Erie Heating Co. Chicago, Ill.

Pipe and Pipe Coverings

W. C. Baker. New York.

Pipe Covering

The James Morrison Brass Mfg. Co. Toronto.
 Mica Boiler Covering Co. Montreal.

Planers

The John Bertram Sons Co. Dundas, Ont.

Porter

E. L. Drewry. Winnipeg.

Portable Boilers

Babcock & Wilcox (Ltd.) Montreal.
 Canada Foundry Co. Toronto.

Portland Cement

Thorn Cement Co. Buffalo, N.Y.

Power Plants, Contractors

Erie Heating Co. Chicago, Ill.

Printing

The Hunter, Rose Co. Toronto.
 The Mail Job Printing Company. Toronto.

Pumps

Canada Foundry Co. Toronto.
 Erie Heating Co. Chicago, Ill.
 Rice Lewis & Son. Toronto.

Punches

F. J. Myers Mfg. Co. Hamilton, Ohio

Punching and Shearing Machines

The John Bertram Sons Co. Dundas, Ont.

Rail Benders, Roller

Montreal Steel Works. Montreal.

Railway Equipment

F. M. Hicks & Co. Chicago, Ill.

Railway Interlocking

General Railway Signal Co. Buffalo, N.Y.

Railway Signalling

General Railway Signal Co. Buffalo, N.Y.

Railway Supplies

The N. L. Piper Railway Supply Co. Toronto.

Rails (New)

Drummond, McCall & Co. Montreal.
 F. H. Hopkins & Co. Montreal.
 J. J. Gartshore. Toronto.
 W. H. C. Mussen & Co. Montreal.

Rails (for relaying)

F. H. Hopkins & Co. Montreal.
 J. J. Gartshore. Toronto.
 T. A. Morrison & Co. Montreal.
 W. H. C. Mussen & Co. Montreal.
 Rice Lewis & Son. Toronto.
 Jas. W. Pyke & Co. Montreal.

Reamers

W. Abbott. Montreal.

Ribbons and Carbon Paper

United Typewriter Co. Toronto.

Rivets, Boiler and Bridge

Canada Foundry Co. Toronto.
 Toronto Bolt and Forging Co. Toronto.

Rolls, Plate Bending

The John Bertram Sons Co. Dundas, Ont.

Roof Trusses

Canada Foundry Co. Toronto.
 Dominion Bridge Co. Montreal.

Roofing Composition

American Asphaltum & Rubber Co. Chicago, Ill.

Roofing Pitch

American Asphaltum & Rubber Co. Chicago, Ill.

Roofing, Ready

American Asphaltum & Rubber Co. Chicago, Ill.

Roofs, Car

American Asphaltum & Rubber Co. Chicago, Ill.

Rope

Rice Lewis & Son. Toronto.
 The Hudson's Bay Company.

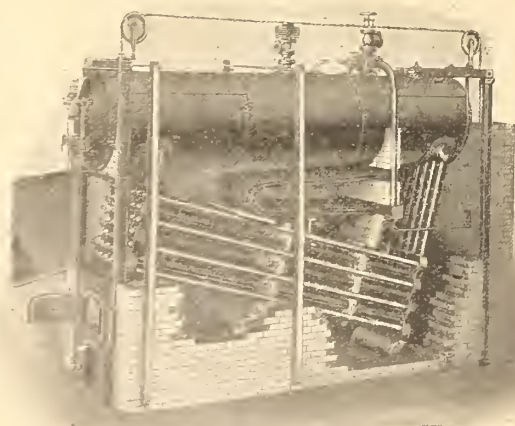
Rotary Snow Ploughs

Crossen Car Mfg. Co. Cobourg, Ont.

Rubber Tiling, Interlocking

The Gutta Percha & Rubber Mfg. Co. of Toronto.

Safety Valves The James Morrison Brass Mfg. Co. Toronto.	Steam Shovels F. H. Hopkins & Co. Montreal. W. H. C. Mussen & Co. Montreal.	Turnbuckles Montreal Steel Works. Montreal.
Sand, White Garden City Sand Co. Chicago, Ill.	Steam Steering Engines for Tugs Sheriffs Mfg. Co. Milwaukee, Wis.	Turntables Canada Foundry Co. Toronto. Dominion Bridge Co. Montreal.
Screws, Coach and Log Toronto Bolt and Forging Co. Toronto.	Steam Traps The James Morrison Brass Mfg. Co. Toronto.	Typewriters United Typewriter Co. Toronto.
Semaphore Arms Acton Burrows Co. Toronto.	Steel W. Abbott Montreal. F. H. Hopkins & Co. Montreal. Wm. Jessop & Sons. Sheffield, Eng. Rice Lewis & Son. Toronto.	Typewriter Repairs United Typewriter Co. Toronto.
Semaphores The N. L. Piper Railway Supply Co. Toronto.	Steel Buildings Canada Foundry Co. Toronto. Dominion Bridge Co. Montreal.	Typewriter Supplies United Typewriter Co. Toronto.
Sewer Pipe (Cast Iron) Gartshore-Thompson Pipe & F'dry Co. Hamilton.	Steel for Springs James Hutton & Co. Montreal.	Valves, Iron and Brass Canada Foundry Co. Toronto. The James Morrison Brass Mfg. Co. Toronto.
Shaking Grates Babcock & Wilcox (Ltd.) Montreal.	Steel Plate Jas. W. Pyke & Co. Montreal.	Valves, Rubber The Gutta Percha & Rubber Mfg. Co. of Toronto.
Shaping Machines The John Bertram Sons Co. Dundas, Ont.	Steel Tyres James Hutton & Co. Montreal. Jas. W. Pyke & Co. Montreal.	Varnishes McCaskill, Dougall & Co. Montreal.
Shipbuilders' Tools and Supplies Rice Lewis & Son. Toronto.	Stop Cocks, Iron and Brass The James Morrison Brass Mfg. Co. Toronto.	Vessels Polson Iron Works. Toronto.
Ship Lamps Continental Heat & Light Co. Montreal. The N. L. Piper Railway Supply Co. Toronto.	Structural Metal Work Canada Foundry Co. Toronto. Dominion Bridge Co. Montreal. Locomotive and Machine Co. of Montreal. Jas. W. Pyke & Co. Montreal.	Waste Rice Lewis & Son. Toronto. N. L. Piper Ry. Supply Co. Toronto. The Queen City Oil Co. Toronto.
Ships Canadian Shipbuilding Co. Toronto. Polson Iron Works. Toronto.	Superheaters Babcock & Wilcox (Ltd.) Montreal.	Water Pipe (Cast Iron) Gartshore-Thompson Pipe & Foundry Co., Hamilton.
Shipbuilders and Engineers Canadian Shipbuilding Co. Toronto.	Switches Montreal Steel Works. Montreal.	Water Softeners Babcock & Wilcox (Ltd.) Montreal.
Shovels F. H. Hopkins & Co. Montreal. The Hudson's Bay Company. Toronto. Rice Lewis & Son. Toronto.	Switch Lamps The N. L. Piper Railway Supply Co. Toronto.	Wheelbarrows F. H. Hopkins & Co. Montreal. Rice Lewis & Son. Toronto.
Side Bearings Simplex Railway Appliance Co. Montreal.	Switch Ropes The B. Greening Co. Hamilton, Ont.	Windmills Goold, Shapley & Muir Co. Brantford, Ont. Ontario Wind Engine and Pump Co. Toronto.
Signal House Numbers Acton Burrows Co. Toronto.	Switch Targets Acton Burrows Co. Toronto.	Wire and Wire Rope Dominion Wire Rope Co. Montreal. The B. Greening Co. Hamilton, Ont. Rice Lewis & Son. Toronto. W. H. C. Mussen & Co. Montreal. The Wire and Cable Co. Montreal.
Signals General Railway Signal Co. Buffalo, N.Y. N. L. Piper Railway Supply Co. Toronto.	Tanks Goold, Shapley & Muir Co. Brantford, Ont.	Wire Cloth The B. Greening Co. Hamilton, Ont. F. J. Myers Mfg. Co. Hamilton, Ohio.
Signs Acton Burrows Co. Toronto.	Tanks and Tank Fixtures Canada Foundry Co. Toronto. Ontario Wind Engine and Pump Co. Toronto.	Wire, Copper E. F. Phillips Electrical Works, Ltd. Montreal. The Wire and Cable Co. Montreal.
Slack Adjusters Chicago Railway Equipment Co. Chicago, Ill.	Telegraph and Telephone Office Signs Acton Burrows Co. Toronto.	Wire, Electric Canadian General Electric Co. Toronto. E. F. Phillips Electrical Works, Ltd. Montreal. The Wire and Cable Co. Montreal.
Slotting Machines The John Bertram Sons Co. Dundas, Ont.	Ticket Punches F. J. Myers Mfg. Co. Hamilton, Ohio.	Wire, Insulated Copper Canadian General Electric Co. Toronto. E. F. Phillips Electrical Works, Ltd. Montreal. The Wire and Cable Co. Montreal.
Snow Ploughs Crossen Mfg. Co. Cobourg, Ont. Rhodes, Curry & Co. Amherst, N.S.	Track Jacks F. H. Hopkins & Co. Montreal. Montreal Steel Works. Montreal. W. H. C. Mussen & Co. Toronto. A. O. Norton Coaticook, Que.	Wire, Telegraph and Telephone E. F. Phillips Electrical Works, Ltd. Montreal. The Wire and Cable Co. Montreal.
Spikes, Railway and Ship Toronto Bolt and Forging Co. Toronto.	Track Tools Canada Switch and Spring Co. Montreal. F. H. Hopkins & Co. Montreal. Rice Lewis & Son. Toronto. Montreal Steel Works. Montreal. W. H. C. Mussen & Co. Montreal.	Wire, Transmission and Trolley The Wire and Cable Co. Montreal.
Springs Montreal Steel Works. Montreal.	Tracklaying Lorries Crossen Car Mfg. Co. Cobourg, Ont.	Wrought Steel Piping Babcock & Wilcox (Ltd.) Montreal. Canada Foundry Co. Toronto.
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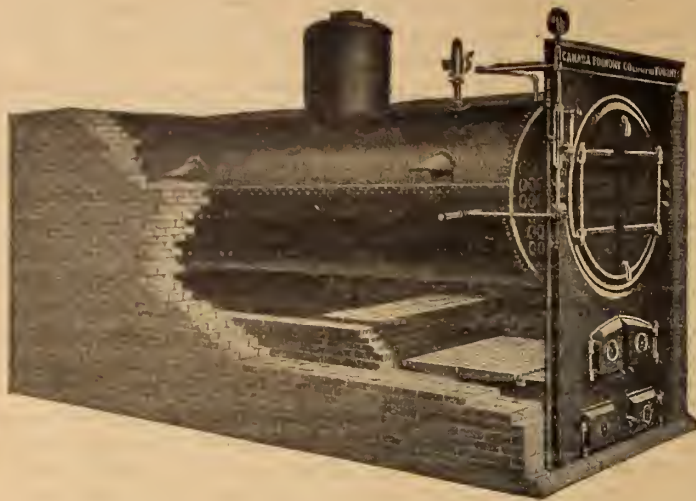
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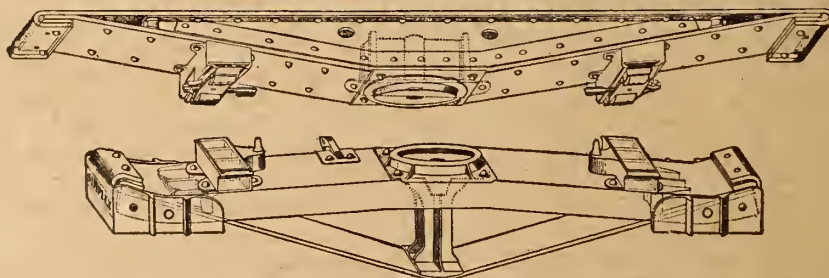
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RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Alaska Central Ry.—A recent report states that 30 miles of track had been laid from Port Shiard, and that grading had been completed for 20 miles beyond track end. Contracts are being arranged for further construction. The line is projected to the Yukon River, a distance of about 500 miles. The company proposes to inaugurate a steamer service from Port Shiard to Vancouver, B.C.; Seattle, Wash., and San Francisco, Cal.

Alberta Ry. and Irrigation Co.—Application will be made at the current session of the Dominion Parliament for an act authorizing the company to amalgamate with the Western Alberta Ry., or to acquire its franchises and property.

The Algoma Central and Hudson Bay Ry. is being operated from Sault Ste. Marie to Mekatina, Ont., 64 miles. Beyond this point to the junction with the Michipicoten branch, grading for which had been completed prior to the reorganization, two miles of track has been laid, and it is understood that during the year work will be resumed and the line completed. Although the Lake Superior Corporation is under contract with the Ontario Government to construct the line to the C.P.R. it is not expected that anything will be done in that direction this year. (Sept., 1904, pg. 311.)

Algoma Copper Range Ry.—Application will be made during the current session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from Batchawaung Bay, easterly to the Superior Copper Mines, thence easterly for about fifty miles to Aubrey Falls, Ont. Power is also sought to operate steam and other vessels on the navigable waters touched by the line. Hearst, McKay and Darling are solicitors for the promoters.

Athabasca and Northern Ry.—The Dominion Parliament will be asked at its current session for the incorporation of a company with this title to construct a railway from Edmonton, northerly to Athabasca Landing, Alta., and to carry on a general navigation business, on the Athabasca River. Smith, Markey, Montgomery and Skinner, Montreal, are solicitors for the promoters.

Athabasca Ry. and Oil Co.—Application will be made at the current session of the Dominion Parliament for an act incorporating a company with this title, to construct a railway from Edmonton, Alta., north-easterly parallel to the course of the North Saskatche-

wan River, to the Athabasca River at the junction of the Clear Water River with it; to own and operate steamers and to carry on a business in oil, petroleum and asphalt and their by-products. Short, Cross, Biggar and Ewing, solicitors, Edmonton, Alta., represent the promoters.

Battleford and Lake Lenore Ry.—The Dominion Parliament will be asked at its current session to pass an act confirming the act incorporating the company, and authorizing a change of location, so that the projected railway may run through Saskatoon, Sask.



W. G. ROSS,
Managing Director Montreal Street Ry. Co. and President
Canadian Street Ry. Association.

Buffalo Union Station.—A report has been prepared by the Fifth Vice-President, New York Central and Hudson River Rd., on the proposed union station terminal at Buffalo, N.Y. There are 12 railway lines entering Buffalo, of which seven run into the N.Y.C. and H.R.Rd. station, three into the Erie Rd. station, and the other three have their own lines; a thirteenth line does not yet enter the city, but is interested in the project. The Canadian lines interested are the G.T.R. and Toronto, Hamilton and Buffalo Ry., which run in over the Michigan Central tracks; while the Michigan Central, the Wabash, and the Pere

Marquette railroads run through Ontario from the Detroit River to the Niagara River, and secure an entrance to Buffalo by various routes. The suggested site for the union station to accommodate these lines is in Genesee St., and the proposed plan, if carried out, would do away with every grade crossing remaining in the city from Main St. to Fort Porter. The site covers an area of 107 acres, on which it is proposed to lay 34 miles of track.

Calgary and Battleford Ry.—Application will be made at the current session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from or near Calgary, Alta., north-easterly to Battleford, Sask., and thence to Prince Albert, Sask. T. L. Metcalfe, Winnipeg, is solicitor for the promoters.

Calgary and Edmonton Ry.—It is proposed to apply at the current session of the Dominion Parliament for power to enable the company to issue bonds to the extent of \$1,000,000 in respect of the proposed bridge over the Saskatchewan River between Strathcona and Edmonton, Alta., to permit the company to make agreements for the use of the bridge by other railway companies, and to charge tolls for the use of the same, in the event of its being constructed so as to permit foot passengers and carriages to pass over it. Power is also asked to enable the company to lease the bridge to the C.P.R.

Cape Breton Ry.—Although traffic has been suspended on this line, which extends from Port Hawkesbury to St. Peters, N.S., the company is endeavoring to make arrangements to secure subsidies for the projected extension from St. Peters to Louisburg, N.S., 65 miles. When the running of trains was suspended in Sept., 1904, it was stated that the company had lost several thousand dollars in operating the line, and that the failure to secure a subsidy for the extension to Louisburg had rendered it necessary to close down.

Chignecto Coal and Ry. Co.—Surveys have been completed for the construction of a railway from the company's mines near Chignecto to Northport, N.S., on the Northumberland Strait, where it is proposed to establish a shipping pier. D. Mitchell, Chignecto, is General Manager.

Colechester Coal and Ry. Co. The company's mines at Debert have been fully developed, and are ready to ship coal. It is, therefore, proposed to go on with the construction of the proposed line from the mines to the Debert, N.S., station on the Intercolonial Ry. The officers and directors for the current year are:—President, Dr. S. Win

(Continued on page 49.)

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RAILWAY DEVELOPMENT.

(Continued from page 45.)

ters, Moncton, N.B.; Vice-President, Hon. F. A. Laurence, Truro, N.S.; other directors: Dr. Jos. Hayes, Parrsboro, N.S.; D. J. Thomas, Truro, N.S.; E. J. Ward, Kentville, N.S.; and Capt. J. Flemming, Halifax, N.S.

Edmonton, Yukon and Pacific Ry.—Application will be made during the current session of the Dominion Parliament for an act extending the time within which the company's projected lines may be constructed.

Fording Valley Ry.—The British Columbia Legislature will be asked at its next session for an act incorporating a company with this title to construct a railway to be operated by steam or electricity, from a point on the B.C. Southern Ry. near the confluence of the Elk River and Michel Creek, along the Elk River valley, then along the Fording River valley, and other rivers, to the Alberta boundary at Henrietta Creek, at the northern limit of the properties of the Imperial Coal and Coke Co. Power is asked to construct branch lines along Grace, Erwin, Smith, Lewis and Henrietta Creeks, also other branches, not exceeding 20 miles long in any one case; to connect with the C.P.R. or any other railway near the projected route. Harvey and McCarter, Victoria, B.C., are solicitors for the promoters, who are the Imperial Coal and Coke Co. (Ltd.), the head offices of which are in Montreal. We are advised that nothing definite has been decided as to construction.

Grand Trunk Pacific Ry.—Application will be made at the current session of the Dominion Parliament for an act ratifying the forms, terms and conditions of the mortgages and securities to be created and issued in aid of the construction of the Prairie section and of the Lake Superior branch or division of the projected line. (Jan., pg. 11).

Great North-Western Transit Co. of Canada.—Application will be made at the current session of the Dominion Parliament for an act confirming a deed of amalgamation entered into between the Hudson's Bay and North-West Rys. Co. and the Manitoba and Keewatin Ry. Co., and giving this title to the consolidated company.

The Hudson's Bay and Yukon Rys. and Navigation Co. was incorporated by the Dominion Parliament in 1897, to construct a railway from Chesterfield Inlet, Hudson's Bay, to Great Slave Lake, and from the Mackenzie River to the Yukon River, with power to carry on a general navigation business on the lakes and rivers touched by the line. The provisional directors were C. T. Harvey, J. W. Langmuir, R. Kilgour, J. K. Kerr, and Jas. Scott, of Toronto. In 1899 an act was obtained changing the name to the Hudson's Bay and North-West Rys. Co., and authorizing amalgamation with other companies, and to construct telephone and telegraph lines.

The Manitoba and Keewatin Ry. Co. was incorporated by the Dominion Parliament in 1902, to construct a railway from Winnipeg or Selkirk, Man., northerly to tide-water on the west coast of James Bay or Hudson's Bay, with branch lines to various points. The provisional directors were: D. W. Bole, F. W. Stobart, H. H. Chown, R. J. Whitla, R. T. Riley, G. D. Wood, D. C. Cameron, and H. M. Howell of Winnipeg, Man.

Halifax and Southwestern Ry.—The line between Halifax and the junction with the old Nova Scotia Central Ry., at Mahone, 68 miles, has been completed, and track has been laid on the section from Bridgewater to Liverpool, 31 miles, but this latter section has not been ballasted. With the nine miles of the old Nova Scotia Central Ry., run over between Mahone and Bridgewater, trains are

being run over 108 miles of line on the eastern coast of the province. At present a tri-weekly service is being operated. Ballasting will be gone on with on the Bridgewater-Liverpool section in the spring. No decision has been reached respecting the location of the remaining section of the line from Liverpool to Barrington Passage or Yarmouth. (Dec., 1904, pg. 421.)

Hamilton Terminal Ry.—Application will be made next session of the Ontario Legislature for an act with this title to construct and operate a railway in Wentworth county, and the city of Hamilton, Ont. Stanton and O'Heir, Hamilton, are solicitors for the promoters.

Hudson's Bay and North-West Ry.—See the Great North-Western Transit Co. of Canada.

International Terminal and Bridge Co.—Application will be made at the current session of the Dominion Parliament for an act incorporating a company with this title for the purpose of constructing a bridge across the Rainy River, at or near Fort Frances, Ont., to carry steam and electric railway tracks, and to provide for vehicles and pedestrians, and to operate terminal and other facilities at Fort Frances. A charter of incorporation will be applied for in the United States for the purpose of constructing the portion of the bridge in the United States, and the railway connections into Koochiching, Minn., to which point the Duluth-Virginia and Rainy Lake Ry. is under construction. Kerr, Davidson, Paterson, and Grant, Toronto, are solicitors for the promoters.

Interprovincial and James Bay Ry.—Application will be made at the current session of the Dominion Parliament for an act granting an extension of time for the commencement and completion of the projected line.

James Bay Ry.—Grading is being pushed on this line in the Don Valley, north of Toronto, and considerable progress is expected to be made before spring. There will be seven or eight bridges to be constructed over the Don within a few miles. Between Washago and Parry Sound good progress is being made. Surveys for the continuation of the line from Parry Sound to Sudbury are progressing. H. T. Hazen, C.E., Toronto, being Division Engineer in charge. (Jan., pg. 13.)

Joliette and Lake Manuan Ry.—The Dominion Parliament will be asked during the current session to pass an act authorizing an extension of time for the construction of the projected railway from Joliette, northerly to Lake Manuan, Que.

Kettle Valley Lines.—The Kettle River Valley Ry. Co. will apply during the current session of the Dominion Parliament for an act authorizing it to construct the following additional lines of railway:—From near Vernon, B.C., on the proposed line to Quilchena, southerly to the International boundary, between British Columbia and the State of Washington; and from a point on the projected line between Fire Valley to Quilchena westerly and northerly to the C.P.R. Power will also be asked to amalgamate with any other railway company, the lines of which cross or parallel those of the Kettle Valley Lines, and to increase the capital stock and bonding powers of the company. (Dec., 1904, pg. 429.)

A correspondent of the Globe, writing of the Kettle River district of British Columbia, says that the valley of the north fork of the Kettle River is very rich in lumber and other resources, and when opened up for settlement will be a fine fruit-growing country. This is the district through which the K.V. lines has surveyed an extension of its line from Grand Forks, B.C. (Dec., 1904, pg. 429.)

Kingston and Dominion Central Ry.—Application will be made during the current session of the Dominion Parliament for an act authorizing the company to construct a line from its projected line between Brockville and Westport, Ont., to Montreal, and from Newboro or Westport to Ottawa. Power is also asked to change the name of the company to the Montreal, Ottawa, Kingston and Georgian Bay Ry. Co.

Kootenay, Caribou and Pacific Ry.—At the current session of the Dominion Parliament application will be made for an act amending the company's act of incorporation, and extending the time for the commencement and completion of the projected main line and branches. The company was incorporated in 1903 to construct a railway from Golden, B.C., to a junction with any railway coming through the Yellowhead Pass, thence to Fort George, on the Fraser River.

Lebonk and Thunder Bay Ry.—Power will be asked at the current session of the Dominion Parliament for the incorporation of a company with this title, to construct a railway from a point on Thunder Bay, following the course of the Blende River, generally northerly to Lebonk Mine, in McTavish township, thence northerly to Loon Lake. T. L. Metcalfe, Winnipeg, Man., is solicitor for the promoters.

Lethbridge, Alta.—Application will be made at the current session of the Dominion Parliament for an act incorporating a company to construct a railway from near the coal deposits in townships 18 and 19, ranges seven and eight, west of the fifth meridian, to Lethbridge, Alta. T. Allen, Lethbridge, is solicitor for the applicants.

Macleod, Cardston and Montana Ry.—The Dominion Parliament will be asked at its current session for an act granting an extension of time for the construction of the company's authorized line in Alberta.

Manitoba and Keewatin Ry.—See the Great North-Western Transit Co. of Canada.

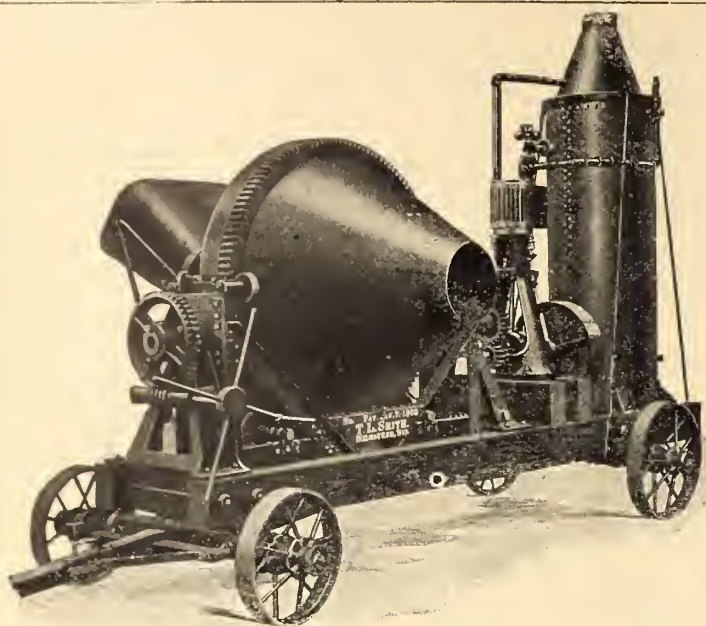
Medicine Hat and Northern Alberta Ry.—The Dominion Parliament will be asked during the current session for an act extending the time for the commencement of and completion of the company's authorized line from Medicine Hat, Assa., to the international boundary for a further period of three years. R. C. Macdonald, Winnipeg, is secretary of the company.

Mieligan Central Rd.—A new tool shop has been completed at the car and locomotive shops at St. Thomas, Ont. The company is employing 325 hands at these shops. (Dec., 1904, pg. 429.)

Montreal Bridge Co.—Application will be made at the current session of the Dominion Parliament for an act authorizing this company to purchase the property, rights and franchises of the Montreal and Longueuil Bridge Co., or to amalgamate therewith; to authorize a change in the proposed site of the bridge; to rearrange the share capital, and to increase its bonding powers.

Montreal, Quebec and Southern Ry.—Application will be made at the current session of the Dominion Parliament for an act to incorporate a company with this title to construct a railway from St. Guillaume station of the Montreal and Atlantic Ry. to Sorel, Que., with power to acquire the charter rights and lines of the South Shore Ry., the Quebec Southern Ry., the East Richelieu Valley Ry., and the Montreal-Longueuil Bridge Co. It is also asked that the time fixed for the completion of the various lines proposed to be acquired be extended.

Moose Jaw and Edmonton Ry.—The Dominion Parliament will be asked at its current session to incorporate a company with this title to construct a railway from the C.P.R. at Moose Jaw, Assa., to the elbow of the South



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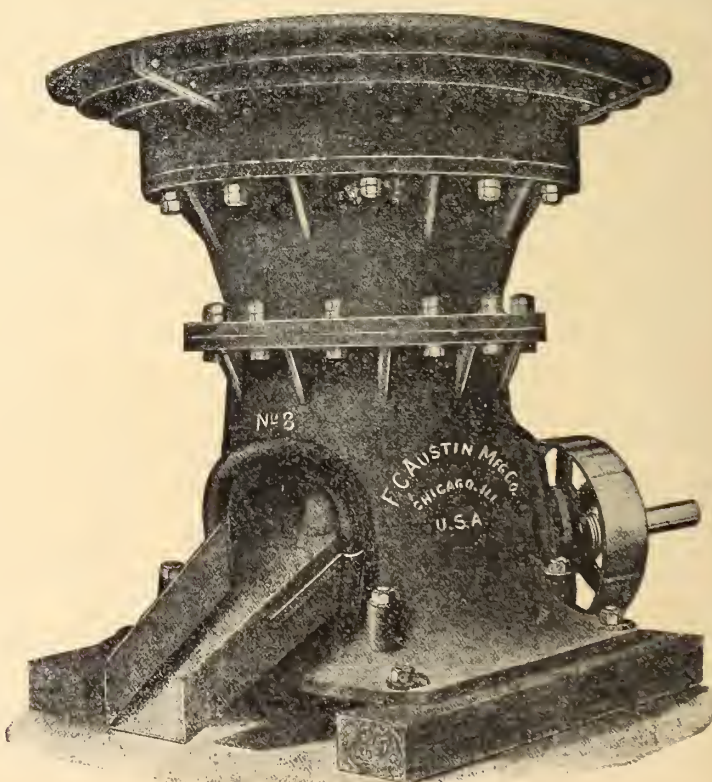
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Saskatchewan River, thence to Edmonton, Sask. McGivern and Haydon, Ottawa, are solicitors for the applicants.

Nicola, Kamloops and Similkameen Ry.—Negotiations are in progress with the Provincial Government respecting a subsidy for the construction of this line from Nicola into the Similkameen Valley, and if a satisfactory arrangement is made construction will be commenced early in the year. (Jan., pg. 13.)

Ottawa River Co.—Application will be made next session of the Dominion Parliament for an act authorizing it to purchase or amalgamate with the Ottawa River Ry. (Ontario), and other railway lines, and to build branches from the projected main line at or near St. Genevieve, Terrebonne, St. Thomas, and Radnor Mine, and also for an extension of time with which the main line may be constructed.

Prince Edward Island Ry.—We are advised that when work was suspended for the winter on the Hillsboro River Bridge, at the end of 1904, all the work on pier 5 had been completed, and all the work under Mr. J. Haney's contract had been done, with the exception of rip rapping the approaches, which will be done in the spring. On the superstructure the ironwork of six spans only has been placed on the piers. The material for flooring has been delivered, and the ironwork of the remaining five fixed spans is on the spot. (Jan., pg. 13.)

Quebec and Lake Huron Ry.—The project of constructing a railway from Quebec to the Georgian Bay at the mouth of French River has again been revived, and the directors at a recent meeting in Quebec, decided to have a preliminary survey of the route made. The projected route is as near as possible in a straight line from Quebec to the mouth of the French River, a distance of about 600 miles, and will open up a large area of forest and mineral lands at present undeveloped. R. J. Campbell, who was one of the principal promoters of the Dominion Securities Co., New York, a corporation which failed, and which was endeavoring to work a big amalgamation of Canadian lines, including the Canada Atlantic Ry., the Quebec Southern Ry., and the South Shore Ry., besides promoting the construction of other lines to couple them up into one system, is the principal promoter of the company.

Quebec and Saguenay Ry.—Application is being made at the current session of the Quebec Legislature for an act incorporating a company with this title to construct a railway to be operated by steam or electricity from the terminus of Quebec Ry., Light and Power Co.'s line at St. Joachim, following the shore of the St. Lawrence River to the mouth of the Saguenay River, with power to construct branch lines. The applicants are: R. Forget, W. McL. Walbank, W. G. Ross, of Montreal; A. Girard, K.C., Marieville, Que., Jas. McCarthy, W. Price, Hon. P. A. Choquette, Hon. C. Langelier, Hon. E. B. Garneau, G. Tanguay, N. Rioux, J. Cameron, and L. A. Taschereau, of Quebec City.

Quebec Southern and South Shore Ry.—See Montreal, Quebec and Southern Ry.

Regina and Hudson's Bay Ry.—Application will be made next session of the Dominion Parliament for an act extending the time for the commencement and completion of this projected railway.

Schomberg and Aurora Ry.—Arrangements are being completed for effecting a junction of the tracks of the S. and A. Ry. with those of the G.T.R. at King, Ont. (June, 1904, pg. 189.)

Temiskaming and Northern Ontario Ry.—The Ontario Government Commissioners having in charge the construction of this line took over the completed portion of the line from

North Bay to New Liskeard, Ont., 112 miles, from the contractors, Jan. 14. For some time past the line has been operated by the contractors, a regular freight and passenger service being maintained. The C.P.R. terminals at North Bay are being used under agreement, but the line has its own freight yard. Beyond New Liskeard the line has been located for 65 miles; grading has been completed for about 40 miles, and track has been laid for 22 miles, or eight miles beyond Tomstown. Surveys are being carried on beyond the 65 mile point to Lake Abitibi, near which it is expected the Moncton-Winnipeg line, which the Dominion Government is about to construct in connection with the Grand Trunk Pacific Ry. project, will pass. (Jan., pg. 15.)

Toronto Union Station.—The question of the expropriation of a portion of the burned-out district of Toronto for the purposes of erecting a new union station thereon has been again before the Board of Railway Commissioners. The general question of expropriation of the property was settled, but a difficulty arose as to the compensation to be paid to the lessees, and who it was to be fixed by. Hon. M. E. Bernier, Deputy Chief Commissioner, expressed an opinion that the amount of compensation to be paid would be the amount the persons interested would be entitled to at common law, namely, the value of the property on the date when notice of expropriation was given; whilst Commissioner Mills was of opinion that compensation should be awarded for the eight months during which the matter has been hanging fire. Upon the question of whether the Commissioners have power to decide the amount of compensation, or whether it has to go before a special court there is also a divergence of opinion. Until the appointment of a chairman to succeed Hon. A. G. Blair, nothing further is likely to be done. (Jan., pg. 15.)

United Nickel Co. of Canada (Ltd.).—Application will be made next session of the Ontario Legislature for an act incorporating a company with this title for the purpose, among other things, of taking over the franchises, assets, etc., of the Huronian Co. (Ltd.), which has power to construct railway lines in connection with its mines near Sudbury, Ont. Beatty, Blackstock, Fasken and Riddell, Toronto, are solicitors for the promoters.

Vancouver and Coast Kootenay Ry.—Application will be made at the current session of the Dominion Parliament for an act authorizing the extension of its projected railway from near Nicola Lake, via Kamloops B.C., to near Pine River Pass, and to build branch lines from its main line to near Penticton, on Okanagan Lake (Jan., pg. 15.)

Vancouver and Lillooet Ry.—Application will be made next session of the B.C. Legislature for an act incorporating a railway, standard or narrow gauge, to be operated by steam or other motive power, from Vancouver to the mouth of Upper Slave River, thence north-westerly to Lillooet Lake, with power to construct branches. The company also desires power to conduct a general navigation business on the lakes and rivers touched by the projected line. Robertson and Robertson, Vancouver, B.C., are solicitors for the promoters.

Yonge Street Bridge, Toronto.—The claim filed by the C.P.R. in connection with the application to set aside the order for the construction of a bridge across the railway tracks at the foot of Yonge St., Toronto, asks the court to declare that the order is invalid because the Esplanade agreement is the subject of special legislation; and for other reasons, the most important being that the railway does not cross Yonge St.; that the G.T.R. having been given the power to run on the level of the Esplanade, there is no power to order another street to be carried

across the Esplanade; and further that the Railway Committee had no jurisdiction to order damages to be paid by the railway companies. (Jan., pg. 15.)

Locomotive and Machine Co. of Montreal.—At a meeting of the stockholders held in Montreal, Jan. 11, the following were elected directors:—A. J. Pitkin, P. Fisk, W. M. Barnum, G. R. Sheldon, D. W. Morrow, of New York; K. W. Blackwell and J. R. Wilson, of Montreal. The officials for the current year are:—President, A. J. Pitkin; Vice-President, J. E. Sague; Second Vice-President, R. J. Gross; Secretary, Leigh Best; Treasurer, C. B. Denny; Comptroller, C. E. Patterson; Manager, S. T. Callaway; General Superintendent, Gurry.

Canadian Railway Club.—Following are the officers and committees for the current year, elected Jan. 3:—President, S. King, Montreal; First Vice-President, W. E. Fowler, Montreal; Second Vice-President, W. D. Robb, Montreal; Executive Committee: J. Powell, L. R. Johnson, H. H. Vaughan, A. A. Mavor, and C. F. Rydberg. Finance Committee: H. Osborne, W. S. Blyth and M. C. Manning. At a subsequent meeting of the Executive Committee, Jas. Powell, Chief Draughtsman, G.T.R. Motive Power Department, Montreal, was appointed Secretary-Treasurer, owing to the removal of W. H. Rosevear, Jr., from Montreal to Toronto. The annual report showed that there were 371 members on the roll 76 new names having been added during the year, and 36 having withdrawn. The treasurer's report showed a satisfactory balance on hand. A committee consisting of the members of the Executive and the Past Presidents was appointed to look over the constitution and by-laws, which require amending in some particulars. This committee will report at the March meeting. A smoker was subsequently held, and arrangements made for holding the annual dinner Jan. 26.

The Algoma Steel Co. began at the new year to manufacture 80-lb. steel rails to fill an order from the C.P.R. for 25,000 tons.

The next biennial convention of the International Brotherhood of Maintenance of Way Employes will be held in Toronto. A. B. Lowe, of Kingston, Ont., is First Vice-President, and C. Boyle, of Merrickville, Ont., Grand Secretary.

At a recent meeting of the Atlantic Steamship Conference and the Trunk Line Passenger Association, the question of the \$2 head tax levied by the U.S. was discussed, and it was decided to make representations to the Government with a view of having the regulations for the collection of this tax amended. It is alleged that the operation of the tax is to prevent alien residents of Canada, and foreign visitors to Canada from entering the U.S., either for pleasure, or to take steamers for Europe at Boston or New York.

The Canadian Westinghouse Co. has sold to the Hamilton Cataract Power, Light & Traction Co., for use in its Victoria substation at Hamilton, Ont., two motor-generator sets, each consisting of a synchronous motor and a direct current generator. The motor-generator sets will be of the two-bearing type, the generators delivering direct current at 550 volts to the railway system, and each being rated at 750 k.w. The synchronous motors will take two-phase current at 8,000 alternations and 2,400 volts, and will be rated at 1,380 h.p. The excess of capacity in the motors is provided so that they may be used for raising the power factor of the transmission system. Power is taken through lowering transformers from the high tension transmission line from the De Cew Falls station of the company.

Orders by the Railway Commissioners.

The following orders have been issued by the Board:—

Authorizing the Vancouver, Westminster and Yukon Ry. to acquire certain lands in Vancouver, B.C., for its tracks. (Dec. 9.)

Approving of the location of the James Bay Ry. from the northern boundary of Toronto to the eastern boundary of Georgina township, mileage 3.10 to mileage 44.18, and from mileage 47.66 to mileage 57.44. (Dec. 12.)

Removing the restriction as to speed of trains on the C.P.R. Arcola-Regina line, between mileages 80 and 93, and 96 and 99 from Arcola, ordered Nov. 9. (Dec. 14.)

Authorizing the C.P.R. to open for traffic the grade revision from Nord, mileage 18.7, to a point west of Secretan, at mileage 49.5 from Moose Jaw, Assa. (Dec. 14.)

Authorizing the temporary use of the crossing of the Dominion Atlantic Ry. line at Middleton, N.S., by the Middleton and Victoria Beach section of the Halifax and South-western Ry. (Dec. 15.)

Granting permission to the North American Telegraph Co. to carry its lines across the C.P.R. at two points in Norwood, Ont. (Dec. 16.)

Granting permission to the Bell Telephone Co. to carry its lines across the tracks of the Toronto, Hamilton and Buffalo Ry. in Barton township, Ont. (Dec. 19.)

Approving a by-law of the Quebec Railway, Light and Power Co., authorizing the General Manager and Superintendent to prepare and issue tariffs of tolls. (Dec. 19.)

Authorizing the Montreal Terminal Ry. to cross the tracks of the Montreal Street Ry., on Davidson St., Montreal, and Letourneau Ave., Maisonneuve. (Dec. 20.)

Granting the Bell Telephone Co. permission to carry its wires across the tracks of the Tillsonburg, Lake Erie and Pacific Ry., at Port Burwell, Ont. (Dec. 20.)

Sanctioning the leasing of the Guelph and Goderich Ry. to the C.P.R., according to the terms of the lease dated Oct. 6, 1904. (Dec. 23.)

Sanctioning the leasing of the Tillsonburg, Lake Erie and Pacific Ry. to the C.P.R., according to the terms of the lease dated Oct. 6, 1904. (Dec. 23.)

Sanctioning the leasing of the Northern Colonization Ry. to the C.P.R., from about three miles north of Labelle to Nominigues, Que., according to the terms of the lease dated Oct. 6, 1904. (Dec. 23.)

Approving a by-law of the Bay of Quinte Ry., Oshawa Ry. and Thousand Islands Ry., authorizing J. F. Chapman, General Freight and Passenger Agent, to make tariffs of tolls. (Dec. 23 and 30.)

Authorizing the Orillia, Ont., Town Council to lay a water main under the G.T.R. tracks at Andrew St. (Dec. 23.)

Approving the plans for the construction of a spur line by the G.T.R. from near Victoria Ave. to Welland Ave., Niagara Falls, Ont. (Dec. 23.)

Authorizing the operation of trains over

the C.P.R.'s new track, constructed near Clanwilliam, B.C., to replace the old line where there was a heavy gradient. (Dec. 29.)

Granting the Bell Telephone Co. permis-

sion to carry its lines across the C.P.R. tracks at Avenue Road, Toronto. (Dec. 29.)

Authorizing the General Manager of the Alberta Ry. and Irrigation Co. to make tariffs of tolls for the company. (Dec. 29.)

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Authorizing the G.T.R. to carry an industrial siding in Berlin, Ont., across the tracks of the Berlin and Bridgeport St. Ry. (Jan. 5.)

Approving the location of an industrial siding for the G.T.R. in Lindsay, Ont. (Jan. 5.)

Approving of the plans for a bridge over the South Saskatchewan River, near Prince Albert, Sask., for the Canadian Northern Ry. (Jan. 5.)

Approving plans for the construction by the G.T.R. of extensions to sidings to brick-yards and paper works, etc., in York township, Ont. (Jan. 5.)

Approving plans for the construction of an industrial siding by the G.T.R. at Sundridge, Ont. (Jan. 5.)

A Freight Rate Decision.

The Board of Railway Commissioners gave the following decision on Dec. 29, 1904:—"The complaint of the Canadian Manufacturers' Association, on behalf of the milling interests of the Association, and other millers and grain merchants, against the G.T.R. and the C.P.R. companies, for advancing the rates on grain and grain products from Ontario to the Maritime Provinces, in contravention of the Railway Act, 1903. On Nov. 30 and Dec. 1, the companies named respectively issued supplements 3 to G.T.R. Tariff C.R.C. no. E 177 and no. 4 to C.P.R. Tariff C.R.C. no. E 177, increasing the rates on grain and grain products, which supplements they declared were to become operative Dec. 5. The issue of said tariffs by said companies to take effect at the time stated being clearly contrary to the terms of sec. 262, sub-sec. 2, of the Act, it is ordered that the rates imposed prior to the issue of said unauthorized supplementary tariffs shall be deemed to have been in force until Dec. 10, 1904; and that the supplementary tariffs issued on Nov. 30 and Dec. 1, advancing the rates on grain and grain products, shall be deemed and are hereby declared to have come into effect and become operative on Dec. 10 instant; but subject to and upon the condition that the said companies shall, without delay, refund to the shippers affected, individually and respectively, the amount or amounts charged and collected by them, or either of them, in excess of the amount properly chargeable under the previous tariffs, between Dec. 5 and 10."

The Intercolonial Ry. has issued its calendar for 1905. The background is of birdseye maple, and in the centre the moosehead—the design of the Government lines—reproduced in the form of a brass medallion.

The Hamilton Cataract, Power, Light and Traction Co. has recently started the two 5,000-kilowatt Westinghouse generators in its power station at De Cew Falls, Ont. Power is supplied from Welland canal feeders, tapped in about 14 miles above the power station, and at the station the water has a head of 267 ft. The Westinghouse generators are of the two-bearing type, direct connected to Escher-Wyss water-wheels, and run at a speed of 286 r.p.m. They generate 3-phase current at a frequency of 66 cycles, and a pressure of 2,400 volts. The power is transmitted to Hamilton, Ont., where it is used for lighting, street railway and manufacturing purposes. A reserve steam-driven station is located at Hamilton, which contains two 1,000-kilowatt Westinghouse generators. The entire station and high tension apparatus are of Westinghouse design. The company has two separate three-phase transmission lines to Hamilton, a distance of about 35 miles. The high tension apparatus is designed for a pressure of 40,000 volts, but will be operated for a time at 20,000 volts.

February Birthdays.

Many happy returns of the day to—
B. H. Bennett, General Agent Chicago and North-Western Ry. at Toronto, born at Cobourg, Ont., Feb. 6, 1858.

H. J. Colvin, District Passenger Agent C.P.R. at Boston, Mass., born at Macedon, N.Y., Feb. 26, 1856.

H. R. Charlton, Advertising Agent G.T.R. at Montreal, born at St. John's, Que., Feb. 9, 1866.

R. Crawford, Northwest Agent Northern Navigation Co. at Winnipeg, Man., born at Kingston, Ont., Feb. 21, 1870.

F. P. Dwyer, Eastern Passenger Agent G.T.R. at New York, born at Chicago, Ill., Feb. 20, 1853.

E. A. Evans, General Manager and Chief Engineer Quebec Ry., Light and Power Co. at Quebec, born at Kensington, London, Eng., Feb. 26, 1855.

E. H. Fitzhugh, Third Vice-President G.T.R. and Vice-President Central Vermont Ry., Montreal, Que., born in Montgomery County, Mo., Feb. 1, 1853.

C. W. Gardner, Auditor Minneapolis, St. Paul and Sault Ste. Marie Ry. at Minneapolis, Minn., born at Rushville, N.Y., Feb. 17, 1861.

J. A. Johnson, Mechanical Foreman I.C.R. at Campbellton, N.B., born at St. John, N.B., Feb., 1848.

R. S. Logan, Assistant to 2nd Vice-President and General Manager G.T.R., Montreal, born at St. Louis, Mo., Feb. 13, 1864.

C. S. Maharg, Trainmaster district 1 C.P.R., Ontario Division, at Havelock, born in Dufferin County, Ont., Feb., 1867.

T. McNabb, Master Mechanic Alberta Ry. and Irrigation Co. at Lethbridge, Alta., born in Scotland, Feb. 16, 1849.

D. MacPherson, Division Engineer C.P.R. at Montreal, born Feb. 2, 1858.

C. W. Milestone, ex-Superintendent C.P.R. at Moose Jaw, Assa., born at Medina, Ohio, Feb. 24, 1857.

C. Percy, Auditor G.T.R., Montreal, born in Kent, Eng., Feb. 12, 1845.

R. D. Pinneo, Assistant General Freight and Passenger Agent, White Pass and Yukon Route, Skagway, Alaska, born at Princeton, Ia., Feb. 9, 1873.

A. H. Robinson, Superintendent Elgin and Havelock Ry. at Petittcodiac, N.B., born at Elgin, N.B., Feb. 2, 1862.

A. E. Rosevear, Freight Claim Agent G.T.R. at Montreal, born Feb. 20, 1863.

J. G. Scott, General Manager Quebec and Lake St. John Ry. at Quebec, born there Feb. 13, 1847.

J. W. Troup, Superintendent C.P.R. Pacific Coast Steamships at Vancouver, born Feb. 5, 1855.

Sir Wm. C. Van Horne, K.C.M.G., Chairman C.P.R. and President Cuba Co., Montreal, born in Will County, Ill., Feb., 1843.

H. W. Walker, General Auditor G.T.R. at Montreal, born at Brantford, Ont., Feb. 12, 1839.

The Pere Marquette in Canada.

The Pere Marquette Rd. purchased the Lake Erie and Detroit River Rd. in 1903, and in 1904 arrangements were completed with the Michigan Central Rd. for the running of trains over portions of its line, and particularly between St. Thomas, Ont., and Buffalo, N.Y. The object of the P.M. Rd. in entering Canada was to obtain a connection with Buffalo, so as to compete for through traffic from Chicago, and the Canadian portion of the company's business in operation as the Buffalo Division. Ever since the new order of things came into force complaints have been frequent that the local traffic on the old Lake Erie and Detroit River Ry. was being sacrificed to enable the through traffic to be carried on. The complaints of freight

being left behind, of passenger trains being cancelled, and of the general unreliability of the trains became so frequent that the Board of Railway Commissioners sent A. Lalonde, one of its inspectors, to investigate matters. He reported that the complaints made were well founded, and that the company's officers stated there was not motive power to handle the traffic, and that rolling stock also was short. During the time the inquiry was going on, a number of the municipalities through which the line passes threatened to cut off the company's water supply if things were not remedied, and the city of London discussed the possibility of cancelling the lease of the London and Port Stanley Ry., if a better service was not provided. The Railway Commissioners notified the company that unless the switching was done properly, and trains run on time, and not be given full loads at initial points, the Board would forthwith put the law in motion to the limit of its jurisdiction and powers. Since the beginning of the year the service generally has been improved, and the causes of complaint removed.

J. S. Pyeatt, Superintendent at St. Thomas, Ont., stated that the causes leading to the complaints were to be found in the fact that the locomotives were not in a condition to handle the traffic, owing to lack of repairs; the water tanks were too small and too far apart. The company had removed its shops from Walkerville to St. Thomas, where the locomotives would be repaired. The fact, however, remains that the Lake Erie and Detroit River Ry. handled the traffic satisfactorily, and there is no doubt that under the new ownership, Canadian business has been sacrificed for through U.S. business. The company has, since these difficulties have arisen, voted \$4,500,000 for additional equipment, a portion of which will be provided for its traffic in Canada.

International Railway Congress.

The seventh session of the International Railway Congress will be held in Washington, D.C., during May. The Association exists for the promotion of the progress and development of railways, and is composed of railway administrations, either state or private, which have formally declared their adherence to this organization, and who either own or work lines for public traffic. In addition, governments are represented by delegates. Its meetings were formerly held at intervals of two or three years, but in later years they have been held every five years. In the interim the affairs of the body are conducted by a permanent commission consisting of 48 elected members, one-third of whom retire and are replaced at each session. The permanent officials consist of a president, two vice-presidents, former presidents of the Congress ex officio, a secretary-general, secretary-treasurer, etc.; these officials constituting the permanent staff for continuing the work one session to the next, and for publishing the record of the proceedings.

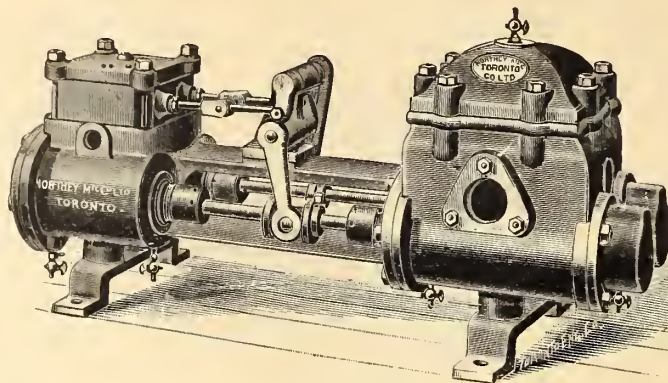
The work of the Congress is divided into sections as follows:—Way and works, motive power and rolling stock, operation, general, light railways. In its practical operation the work of each of these sections is subdivided in conformity with a programme consisting of a certain number of questions determined upon by the permanent commission, and for the treatment of which reporters in one or several countries are appointed. The reports will be presented and then discussed.

In conformity with the usual practice of adding a section representative of the country in which the Congress is held, an American section has been added. It includes D. McNicholl, Vice-President C.P.R., and C.M.

CANADA FOUNDRY COMPANY, Limited

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Manufacturers of
Pumps for all duties
requiring the delivery
of liquids under
heavy pressure.



For Boiler Feeding,
Mills, Factories, Hy-
draulic Elevators
and all power pur-
poses.

SEND FOR CATALOGUE.

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BROAD AND NARROW GAUGE SINGLE EXPANSION AND COMPOUND

LOCOMOTIVES

Mine, Furnace and Industrial Locomotives. Electric Locomotives with Westinghouse Motors and Electric Trucks.

Grand Prize and Gold Medals awarded by the Louisiana Purchase Exposition.

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& HUDSON RIVER R. R.

THE SIX TRACK TRUNK LINE.

In connection with the

Canadian Pacific Ry.,
Toronto, Hamilton & Buffalo Ry.,
and Michigan Central R.R.,

operates the quickest and best trains
between Toronto, Hamilton and New
York.

Day Train leaves Toronto 9.45 a.m.,
Hamilton 10.45 a.m., connects with the

"EMPIRE STATE EXPRESS"
(except Sunday)

Arrives in New York 10 p.m.

Night Train with dining and sleep-
ing cars leaves Toronto 5.20 p.m., Hamil-
ton 6.20 p.m., arrives New York 7.50
next morning at

GRAND CENTRAL STATION

This is the **only station** in New York
city, and it is reached only by the trains of
the New York Central and Hudson River
Railroad.

Connections at Suspension Bridge with
the Grand Trunk Railway.

L. DRAGO,

Canadian Passenger Agent, 69½ Yonge Street,
TORONTO, ONT.

Hays, Second Vice-President and General Manager G.T.R., Montreal, representing Canadian lines.

In connection with the Congress there will be held an exhibition of railway appliances, under the charge of a committee of which the following are among the members: L. F. Brame, General Manager Continuous Rail Joint Co. of America, Newark, N.J.; O. H. Cutler, President American Brake Shoe and Foundry Co., New York; A. B. Johnson, Baldwin Locomotive Works, Philadelphia, Pa.; W. V. Kelly, President Simplex Railway Appliance Co., Chicago, Ill.; E. B. Leigh, Vice-President Chicago Railway Equipment Co., Chicago, Ill.; General Charles Miller, Galena-Signal Oil Co., Franklin, Pa.; A. J. Pitkin, President American Locomotive Co.; W. W. Salmon, President General Railway Signal Co., New York; H. H. Westinghouse.

The First Traffic Passenger Manager.

At the last annual meeting of the American Association of General Passenger and Ticket Agents, in the course of a paper read by S. H. Hardwick, Passenger Traffic Manager Southern Ry., on "The Evolution and Compositiveness of the General Passenger Agent," a letter from Lucius Tuttle, President Maine Central Ry., was quoted, which contained the following paragraph:—"I think you wanted to know something about the origin of the title Passenger Traffic Manager. I am quite certain that I was the first to be given that title. When I was employed by President Van Horne of the C.P.R., Jan. 1, 1887, the road already possessed a full outfit of passenger department officers, including a General Passenger and Ticket Agent. President Van Horne desired to create a new position for me that should not interfere with the rank or title of officers already employed, and as the C.P.R. was largely owned in England, where railway officials' titles are different from those in America, he desired to make my place one that would be better understood by the English owners and customers of the C.P.R. He, therefore, suggested that the title be Passenger Traffic Manager. The suggestion was wholly President Van Horne's, and I think was, in a way, a stroke of genius, and I am very glad that the title is being generally adopted by the large systems throughout the United States."

C.P.R. Earnings, Expenses, Etc.

Gross earnings, working expenses, net profits, increases or decreases over 1903, from July 1, 1904:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July	\$4,398,833.95	\$2,949,181.81	\$1,449,652.14	\$131,125.02+
Aug.	4,474,237.64	2,946,307.21	1,527,930.43	93,827.03+
Sept.	4,220,876.03	2,952,668.47	1,268,207.56	66,541.75+
Oct.	4,743,961.93	3,177,848.02	1,566,113.91	87,913.10+
Nov.	4,751,970.43	3,082,395.69	1,669,574.74	191,593.56+

\$22,589,879.58 \$15,107,801.22 \$7,482,078.36 \$395,175.16+

Approximate earnings for Dec., \$4,517,000 against \$4,221,000, for Dec. 1903.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Nov., \$210,941.67; net earnings, \$61,559.14, against \$189,343.44 gross and \$44,676.64 net for Nov., 1903. Net earnings for five months ended Nov. 30, \$397,604.62, against \$400,001.89, for same period, 1903. Approximate earnings for Dec. \$191,913 against \$197,383 for Dec., 1903.

MINERAL RANGE RY.—Approximate earnings for Dec., \$52,885, against \$45,964 for Dec., 1903.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Nov., \$942,186.66; net earnings \$558,986.59, against \$770,391.22 gross and \$445,723.48 net for Nov., 1903. Net earnings for five months ended Nov. 30, \$2,101,313.87, against \$1,900,738.36 for same period 1903. Approximate earnings for Dec., \$700,577, against \$584,127 for Dec., 1903.

Canadian Pacific Railway Land Sales.

	Acres.	—	Amount.	
	1904-05	1903-04	1902-03	1901-02
July . .	36,425.75	267,647.32	\$177,473.94	\$1,020,494.70
Aug. . .	15,669.90	263,339.45	88,735.88	1,217,529.81
Sept. . .	16,470.02	60,441.12	73,642.66	268,757.99
Oct. . .	23,792.84	15,950.07	104,843.47	236,611.59
Nov. . .	23,392.84	22,563.95	112,261.70	107,363.21
Dec. . .	32,196.59	30,146.00	142,583.40	125,076.00
_____	147,947.94	599,646.79	\$899,541.35	\$4,761,587.38

Grand Trunk Ry. Earnings, Expenses, &c.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1904.	1903.	Increase.	Decrease.
July	\$3,013,149	\$3,192,608	.....	\$179,459
Aug.	3,108,137	3,201,511	.....	93,374
Sept.	3,182,972	3,274,245	.....	91,273
Oct.	3,174,437	3,222,750	.....	48,313
Nov.	3,044,324	2,925,000	119,324	.....
Dec.	3,053,246	2,956,382	96,864	.....
	\$18,576,265	\$18,772,496	.....	\$196,231

TRAFFIC RECEIPTS OF THE SYSTEM.

The following figures relate to the individual lines, and are made out in sterling:

GRAND TRUNK RY. CO.

	1904.	1903.	Increase.	Decrease.
Revenue for Nov.				
Gross receipts	£503,000	£480,400	£22,600	.....
Working expenses	345,000	326,200	18,800	.....
Net profit	£158,000	£154,200	£3,800	.....

Aggregate from July 1 to Nov. 30:

	1904.	1903.	Increase.	Decrease.
Gross receipts	£2,611,500	£2,628,800	.....	£17,300
Working expen.	1,750,800	1,772,500	£21,700	.....
Net profit	£860,700	£856,300	£4,400	.....

GRAND TRUNK WESTERN RY. CO.

	1904.	1903.	Increase.	Decrease.
Revenue for Nov.				
Gross receipts	£99,300	£100,400	.....	£1,100
Working expenses	76,600	82,400	.....	5,800
Net profit	£22,700	£18,000	£4,700	.....

Aggregate from July 1 to Nov. 30:

	1904.	1903.	Increase.	Decrease.
Gross receipts	£448,100	£500,800	.....	£52,700
Working expenses	391,800	442,500	.....	50,700
Net profit	£56,300	£58,300	.....	£2,000

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.

	1904.	1903.	Increase.	Decrease.
Revenue for Nov.				
Gross receipts	£23,200	£20,200	£3,000	.....
Working expenses	16,200	17,000	.....	800
Net profit	£7,000	£3,200	£3,800	.....

Aggregate from July 1 to Nov. 30:

	1904.	1903.	Increase.	Decrease.
Gross receipts	£133,700	£119,600	£14,100	.....
Working expenses	93,800	87,400	6,400	.....
Net profit	£39,900	£32,200	£7,700	.....

TRAFFIC RECEIPTS OF THE SYSTEM.

	1904.	1903.	Increase.	Decrease.
Aggregate from July 1 to Dec. 31:				
Grand Trunk	£3,131,205	£3,134,988	.....	£3,783
G. T. Western	525,671	579,463	.....	53,792
D. G. H. & M.	160,162	142,911	£17,251	.....
Total	£3,817,038	£3,857,362	.....	£40,324

McCaskill, Dougall & Co., Montreal, supplied the varnish for the sleeping cars which have recently been built for the Intercolonial Ry. by the Pullman Co.

The executive committee of the Canadian Ticket Agents' Association will be held at the King Edward hotel, Toronto, on Feb. 7 at 2 p.m., when the time and place of the next annual meeting will probably be decided; to consider, and, if favorable, to appoint representatives to the annual convention of the American Association of General Passenger and Ticket Agents to be held at Mexico City in Oct.; and to appoint a member of the executive committee to succeed J. W. Ryder, Toronto, who has retired.

The Light Traffic Co. has been incorporated under the B.C. Companies' Act, with offices in Victoria, B.C., to work a new mono-rail portable railway system, recently patented in Great Britain and Ireland, and various other countries. Application is being made at the current session of the Dominion Parliament for an act authorizing the issue of a Canadian patent for the invention, notwithstanding the fact that a year has elapsed from the issue of the British patents. The inventor resides in London, Eng., and Cassidy, Dumbleton and Solomon, Victoria, B.C., are solicitors for the company.

Railway Equipment Notes.

The Dominion Coal Co. has completed a large snow plow for use in its railway yards, Glace Bay, N.S.

The C.P.R. has placed an order with Rhodes, Curry & Co., Amherst, N.S., for 2,000 car axles.

The Baldwin Locomotive Works Record of Construction, no. 49, deals with balanced compound locomotives.

The Inverness Ry. and Coal Co. has added a snow plow from Rhodes, Curry & Co., Amherst, N.S., to its equipment.

The Halifax and South-Western Ry. has received its passenger equipment from Rhodes, Curry & Co., Amherst, N.S.

The Canadian Northern Ry. has ordered 200 box cars, 60,000 lbs. capacity, from the Crossen Car Manufacturing Co., Cobourg, Ont.

The Temiskaming and Northern Ontario Ry. has placed an order for 25 flat cars, two vans and one snow plow with Rhodes, Curry & Co., Amherst, N.S.

The G.T.R.'s contract with the Canada Car Co. includes all classes of freight and passenger equipment for both the G.T.R. and the Grand Trunk Pacific Ry.

The C.P.R. is about to build 3,000 box cars of its standard 30 ton capacity, at its Angus shops, Montreal, and we are advised that the press reports that it is in the market for from 1,000 to 2,000 box cars of 60,000 lbs. capacity is incorrect.

The Safety Car Heating and Lighting Co. at the end of 1904 was supplying over 45,000,000 cubic feet of Pintsch gas a month for lighting railway cars. Up to the same date it had supplied over 3,800 gas lighting equipments and over 3,900 heating equipments for sleeping cars.

During 1904, there was a decrease of about \$900,000 in the duty collected at the port of Montreal, as compared with 1903, and of this amount about \$500,000 is due to the decreased importation of locomotives. In 1903 locomotives were being imported from the Saxon Engine Works, Chemnitz, Germany, and from Scotland, as well as from the U.S.

The Safety Car Heating and Lighting Co. has been given a contract to supply the necessary equipment and furnish Pintsch gas for lighting all the passenger equipment of the G.T.R. and the Grand Trunk Pacific Ry. In connection with this contract, plants for the manufacture of the gas will be established at any points where the G.T.R. may deem them to be required.

The C.P.R., between Dec. 13 and Jan. 17, received the following additional equipment: three freight locomotives from the Canada Foundry Co., Toronto; four switching locomotives, four sleeping cars, two first-class cars, five snow plows, one flanger and 309 box cars from its Angus shops; 13 vans from its Farnham, Que., shops; and 32 standard ore cars from the U.S.

The Pattee and Lett Co. (Ltd.) has been incorporated under the Dominion Companies' Act for the purpose, among other things, of operating refrigerator and other cars for the carriage of fruit, flowers, etc., throughout Canada. C. B. H. G., and L. G. Pattee, C. B. Powell, F. W. Carling, Ottawa, and W. P. Lett, of San Francisco, Cal., are the provisional directors. The capital is \$100,000, and the offices are at Ottawa.

The C.P.R., between Dec. 13 and Jan. 17, placed the following orders for equipment:— 10 freight locomotives with the Canadian Locomotive Co., Kingston, Ont.; two switching locomotives, one first-class car, one tourist car, one baggage car, one mail car, two snow plows, 102 box cars, 17 stock cars and

THE WIRE AND CABLE COMPANY, - MONTREAL

TRANSPORTATION APPOINTMENTS.

Canadian Pacific Ry.—The President's circular announcing the new appointment of Hayter Reed, heretofore Manager of the Chateau Frontenac, Quebec, designates him as Manager in Chief of the company's Hotel Department, with office at Montreal.

A. A. Goodchild, heretofore auditor of Statistics, has been appointed Auditor of Mechanical Accounts, and will have charge of all store and shop accounts. Office, Montreal.

J. H. Callaghan, heretofore assistant to the General Storekeeper, has been appointed General Storekeeper lines east of Fort William. Office, Montreal.

The Special Service Department heretofore carried on has been abolished, and the work done by it will, in the future, be carried on by other means.

G. E. Burns, heretofore Chief of the Special Service, has been appointed Freight Claims Agent, lines east of Fort William, Ont. Office, Montreal.

C. W. Carey has been appointed Assistant Air Brake Inspector. Headquarters, Montreal.

T. A. Riddell, heretofore Freight Claims Agent at Montreal, has been appointed Assistant Freight Claims Agent, in charge of the Ontario Division. Office, Toronto.

L. A. W. Doherty, heretofore chief clerk general freight department, Toronto, has been appointed chief clerk in the Assistant Freight Traffic Manager's office, Toronto, succeeding J. R. Marlow, resigned.

L. Mulkern, heretofore city canvassing agent, Toronto, has been appointed chief clerk in the District Freight Agent's office, there, succeeding L. A. W. Doherty, promoted.

A. O. Secord has been appointed city canvassing agent, Toronto, succeeding L. Mulkern, promoted.

S. S. Buchanan has been appointed Superintendent of Terminals and Ferries with office at Windsor, Ont. His duties will include the supervision of the movement of this company's traffic both at Windsor and at Detroit, and of the car ferries between these points. He will continue to act as station agent at Windsor.

W. H. D'Arcy has been appointed General Claims Agent, Western Lines, with office at Winnipeg. The Claims Department, Western Lines, will hereafter be under his general supervision. He will be assisted by a Freight Claims Agent at Winnipeg who will have full charge of all claims for lost or damaged freight on the Central and Western Divisions, and by a Freight Claims Agent at Vancouver who will deal with all claims for lost or damaged freight and such other matters as may be assigned to him for the Pacific Division. The General Claims Agent will deal directly with all claims arising out of personal injuries, fire and live stock killed or injured on the company's right-of-way.

L. O. Genest, for many years in charge of the stores at Winnipeg, has been appointed General Storekeeper for Western Lines. Office, Winnipeg.

C. H. Temple, heretofore Master Mechanic at Revelstoke, B.C., has been appointed Master Mechanic, Central Division, succeeding J. Cardell, transferred.

C. E. Cartwright, heretofore Assistant Division Engineer, Pacific Division, has been appointed Division Engineer, succeeding G. H. Webster, resigned.

C. S. Richards, heretofore contracting freight agent at New York, has been appointed travelling freight agent at Buffalo, for New York state and part of Pennsylvania, vice F. J. Goodman, appointed travelling freight agent at Philadelphia, Eastern Pennsylvania, Maryland, Delaware and South.

Central Vermont Ry.—E. H. Fitzhugh, heretofore Vice-President and General Man-

ager, retains his office of Vice-President C. V. Ry., on his appointment as Third Vice-President G.T.R.

G. C. Jones, heretofore Superintendent Middle Division G.T.R., Toronto, has been appointed General Manager C.V. Ry., with general supervision and direction of the maintenance and operation of the property. Office, St. Albans, Vt.

Chicago Great Western Ry.—Staunton Baker, formerly chief clerk in the Western Passenger Agents' Office, Richelieu and Ontario Navigation Co., Toronto, and latterly secretary to the General Manager, R. and O. N. Co., at Montreal, has been appointed Travelling Freight and Passenger Agent, C.G.W. Ry., with headquarters at Toronto.

Intercolonial Ry.—The press report that A. B. Copp, of Sackville, N.B., had been appointed solicitor, to succeed Hon. F. J. Sweeney, we are advised is not correct.

J. J. Walker, heretofore chief clerk in the Treasurer's office, has been appointed accountant in the mechanical department, succeeding the late J. J. Sutton.

C. F. Burns, heretofore travelling auditor, has been appointed chief clerk in the Treasurer's office, succeeding J. J. Walker, promoted.

F. L. Schwartz has been appointed travelling auditor, succeeding C. F. Burns, promoted.

F. Chapman has been appointed chief clerk in the Division Freight office, Halifax, N.S., succeeding J. A. Weldon, appointed Secretary Halifax Board of Trade.

Moncton and Buctouche Ry.—F. N. Hall, heretofore General Freight and Passenger Agent, has been appointed Superintendent. Office, Moncton, N.B. This is a new position.

Niagara, St. Catharines and Toronto Ry.—John Paul, heretofore Michigan Central Rd. at London, Ont., press reports state has been appointed Freight Agent, N., St. C. and T. Ry. Office, St. Catharines, Ont.

Pere Marquette Rd.—E. E. Cain has been appointed Trainmaster, Buffalo Division, succeeding K. R. Cameron, resigned. Office, St. Thomas, Ont.

Jno. Gilhula has been appointed Chief Train Dispatcher, Buffalo Division. Office, St. Thomas.

W. L. Kellogg has been appointed Master Mechanic in charge of motive power and equipment, succeeding W. K. Christie, assigned to other duties. Office, Grand Rapids, Mich.

N. B. Whitsel, heretofore Master Mechanic, Northern Division G.T.R., Allandale, Ont., has been appointed Assistant Master Mechanic in charge of shops, motive power and cars of the Grand Rapids District, P.M. Rd. Headquarters, Grand Rapids, Mich.

Quebec Central Ry.—A Sherbrooke, Que., press report recently stated that F. Grundy, now Vice-President and General Manager, was to be appointed President; J. H. Walsh, now General Freight, Passenger and Baggage Agent, was to be appointed General Manager, and E. O. Grundy was to succeed J. H. Walsh. We are officially informed that there is nothing in the report.

C. R. Hosmer, director C.P.R., and family, left Montreal early in Jan. for a visit to Egypt.

E. B. Kenrick who was appointed Water Analyst for C.P.R. Western Lines in Nov., 1904, at Winnipeg, Man., died there Jan. 26, of typhoid pneumonia, aged 41. He was educated at Upper Canada College, Toronto; at one time he was Lecturer in Chemistry at St. John's College, Winnipeg, and afterwards Professor of Chemistry at the University of Manitoba, there.

MAINLY ABOUT PEOPLE.

Lady Boswall, sister of Sir H. M. Allan, Montreal, died at Edinburgh, Scotland, recently.

Joseph Navin, G.T.R. Yardmaster, London, Ont., was killed in the yards there recently.

Mrs. Mason, wife of G. Mason, formerly paymaster G.T.R., died at Vancouver, B.C., Dec. 29.

The late G. M. Clarke, formerly chief counsel for the C.P.R., left an estate valued at about \$200,000.

Lord Mountstephen has made a donation of \$1,000,000 to the King's Hospital Fund, in London, Eng.

T. A. Hunt, of the C.P.R. solicitor's department, Winnipeg, has resigned and resumed private practice.

C. B. Hibbard, General Manager Quebec Southern Ry., Montreal, has recovered from an attack of peritonitis.

Randolph Macdonald, railway and general contractor, Toronto, has been elected President of the Sovereign Bank.

T. D. Rogers, son of B. Rogers, President of the Charlottetown Steam Navigation Co., died at Charlottetown, P.E.I., recently.

A. Burns, who died at Dawson, Yukon, recently, operated a tramway on Chilkoot Pass, in 1897, during the first rush to the Klondike.

A. W. Lindsay, of the I.C.R. advertising department, Moncton, N.B., was married at Halifax, N.S., Dec. 29, to Miss Vial, of Sussex, N.B.

Major V. Sankey, city surveyor of Toronto, has resigned to take a position on the surveying staff of the Grand Trunk Pacific Ry., at Winnipeg.

R. H. Easson, son of R. E. Easson, press agent G.N.W. Telegraph Co., Toronto, was married to Miss Winnifred Garvin, at Toronto, Dec. 28.

E. L. Drewry, of Winnipeg, has given \$1,000 to the funds of the Winnipeg General Hospital, to be used for building and furnishing purposes.

R. Jackson, I.C.R. station agent, North Sydney, N.S., was presented with a set of drawing-room and dining-room furniture by the employees there, Dec. 30.

E. B. Osler, M.P., director C.P.R. and President Niagara Navigation Co., has taken up his residence at Crichton lodge, Ottawa, for the parliamentary season.

G. H. Dobson, for many years Secretary of the Sydney Board of Trade, and author of pamphlets dealing with transportation problems, died at Sydney, N.S., Jan. 3.

Angus Sinclair, contractor James Bay Ry., has bought a house on Crescent Road, Rosedale, Toronto, and with Mrs. Sinclair and family has taken up his residence there.

H. H. Vaughan, Superintendent of Motive Power, C.P.R. lines east, has been given a gold medal in connection with the locomotive tests at the recent St. Louis Exhibition.

N. Brownell, C.P.R. live stock agent, Winnipeg, was presented with a silver service by shippers of live stock, Dec. 29, on the completion of 20 years' service in that position.

The value of the estate of the late C. Shields, General Manager of the Lake Superior Corporation, Sault Ste. Marie, Ont., has been placed for probate at \$115,113.48.

T. Driscoll, Superintendent B.C. Electric Ry. car shops at New Westminster, B.C., was presented recently with a gold headed umbrella and an address by the shop employees.

C. W. Babbitt, train dispatcher Michigan Central Rd., at Jackson, Mich., who died there recently, was brother of G. W. Babbitt,

RAILWAY AND STEAMBOAT **RUBBER GOODS** of the Highest Grade . . .

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For Air Brakes, Steam, Gas,
Water, Pneumatic Tools,
Fire Protection.



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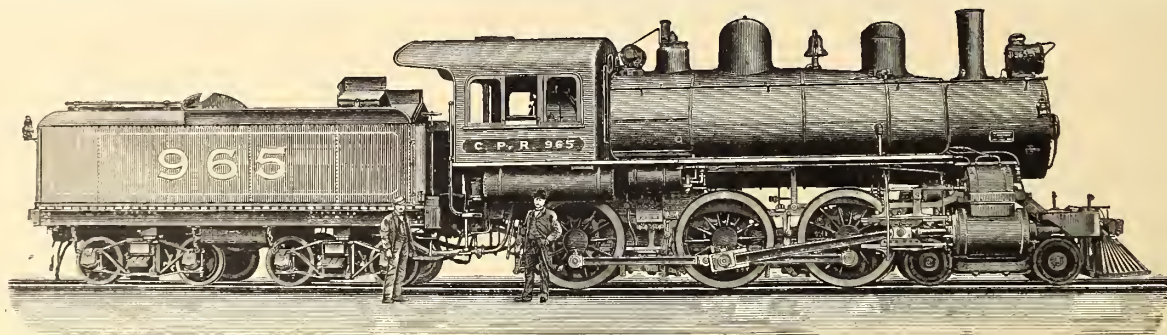
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THE GUTTA PERCHA & RUBBER MFG. CO. OF TORONTO LIMITED

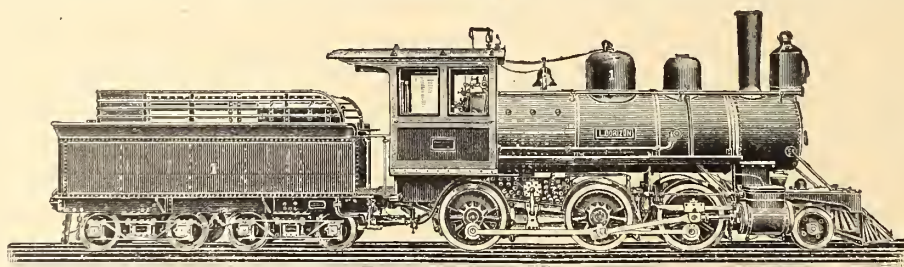
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The Saxon Engine Works, late Rich. Hartmann, Limited
CHEMNITZ (Germany),

Carry on the construction of **LOCOMOTIVES** of every description.

Number
of
Workmen,
5,200.



Capital,
\$3,000,000.

GENERAL RAILWAY SIGNAL CO.

General Office, Buffalo, N. Y.

Works, Buffalo, N. Y., and Rochester, N. Y.

New York Office, Broad Exchange Building. Chicago Office, Monadnock Block. St. Louis Office, Frisco Building.

The General Railway Signal Company has acquired the American assets and properties of the Taylor Signal Company, of Buffalo, N. Y., and of the Pneumatic Signal Company, of Rochester, N. Y., and is prepared to furnish and install approved forms of mechanical, pneumatic, electro-pneumatic and electric interlocking devices, track circuit appliances, motor signals, railway gates, etc.

Chief Train Dispatcher, Michigan Central Rd., St. Thomas, Ont.

Mrs. H. D. Lumsden and family have removed from Toronto to take up their residence at Ottawa, where Mr. Lumsden, Chief Engineer to the Transcontinental Ry. Commission, has to reside.

John Barrow, son of the City Engineer of Hamilton, Ont., died there recently. Prior to his illness he was on the G.T.R. engineering staff on the double-track work between Hamilton and Brantford.

W. T. Hackett, who died at Kansas City, Mo., recently, aged 83, took the first locomotive into Toronto, in 1853, and also took the first locomotive into Kansas City, where he has resided since 1865.

J. Whitebread, Secretary-Treasurer of the Kingston and Pembroke Ry., at Kingston, Ont., has resigned, and will remove at an early date to Calgary, Alta., where he will go into the lumber business.

W. B. Dawson, engineer in charge of the tidal and current survey of Canada, has been awarded the Gay prize of 1,500 francs, by the Academy of Sciences of France, for work done on the coast of Canada.

The B.C. Electric Ry. Co., at Christmas, sent Mrs. F. R. Glover, of New Westminster, B.C., a diamond ring as a memento of her action which saved an accident on the company's line there in May, 1904.

Train Dispatcher Philpot, of the Sydney and Louisburg Ry., accidentally received an electric shock of 2,000 volts, while in his office recently. He was rendered unconscious, but was not seriously affected by the shock.

J. J. Brignall, chief clerk District Passenger Agents' office, C.P.R., Toronto, was presented with a handsome umbrella Jan. 1, by a number of newspaper friends in connection with his return to his office, after a lengthened absence through illness.

R. McColl, Provincial Engineer, Halifax, N.S., and Mrs. McColl, who were in the collision on the Wabash Rd., at Decatur, Ill., Nov. 29, 1904, were sufficiently recovered from their injuries to leave the hospital at Decatur, and return home Dec. 23.

E. F. Osler, son of E. B. Osler, M.P., director C.P.R., was married in Rochester Cathedral, Eng., recently. W. Harty, son of Hon. W. Harty, President Canadian Locomotive Works, Kingston, Ont., where E. F. Osler is engaged, was the best man.

Hayter Reed, who has been appointed Manager in Chief C.P.R. hotels, was presented with an illuminated address by the Chateau Frontenac Snowshoe Club, of which he was the founder, on the occasion of his leaving Quebec to take up his new duties.

A proposal was recently made to present a residence in Ottawa to the Minister of Railways, but Hon. H. R. Emmerson declined it. The residence, however, will be purchased and maintained for the use of the New Brunswick representative in the Dominion Cabinet.

R. J. Fleming, General Manager Toronto Ry., in his letter to the Toronto City Council resigning his position as Assessment Commissioner, said the offer of \$10,000 a year was such an inducement that in justice to his family he had no other course than to accept.

A. O. Secord, who has been appointed city canvassing agent, C.P.R. Toronto, was born at Goderich, Ont., May 23, 1874, and entered railway service in 1899 as junior clerk, and at the date of his present appointment was chief clerk in the C.P.R. local freight office, Toronto.

J. Gillhula, who has been appointed Chief Train Dispatcher Pere Marquette Rd., at St. Thomas, Ont., was born at South Buxton, Ont., and was for some time with the Michi-

gan Central Rd., being its agent at Fargo. He was subsequently with the Missouri Pacific Rd., and the Wabash Rd.

G. A. Simpson, C.E., who died in Winnipeg, Jan. 8, after a lengthened illness, was engaged on survey work for the C.P.R. in the Rocky Mountains; from 1892 to 1898 he was Resident Engineer at Winnipeg for the Northern Pacific Ry., and from 1898 to the date of his death was successively Chief Clerk, Chief Engineer and Deputy Minister of the Department of Public Works for the province.

R. L. Whyte, who died at Hamilton, Ont., Jan. 11, aged 84, was at one time chief draughtsman at the locomotive works of Robert Stevenson & Co., Newcastle-on-Tyne, Eng., and after a varied career with locomotive and machine shops in France and the United States, finally settled in Canada, where he was appointed to a position in the customs house at Hamilton, retiring on a pension in 1896.

J. H. Ashdown, who has been appointed a member of the Transportation Commission, to fill the vacancy caused by the death of John Bertram, of Toronto, who was chair-



C. B. FOSTER,

District Passenger Agent C.P.R. at Toronto.

man, was born in London, Ont., Mar. 31, 1844, and has been a resident of Winnipeg since 1868. He has been engaged in the hardware business since 1869, and is now President of the Ashdown Hardware Co. He was an unsuccessful candidate for the Dominion Parliament in 1896.

A. A. Goodchild, who has been appointed Auditor of Stores and Mechanical Accounts C.P.R. at Montreal, was born at Peckham, Eng., June 3, 1866. He came to Canada in July, 1886, and entered the service of the G.T.R. the same month. After service in the Audit and Accountant's office for 18 months, he entered the service of the C.P.R. Jan. 1, 1888, in the Comptroller's office. He was appointed Assistant Auditor of Disbursements Oct. 1, 1899, and Auditor of Statistics, Jan., 1900.

G. C. Jones, who has been appointed General Manager Central Vermont Ry., at St. Albans, Vt., has been in the railway service since 1874, his record being as follows:—1874 to 1883, car checker, operator and dispatcher, Atlantic and Great Western Rd. (now Erie Rd.); 1883 to 1887, dispatcher, Cleveland, Cincinnati, Chicago and St. Louis Rd.; 1887 to 1896, train dispatcher and Chief Train Dis-

patcher, Wabash Rd.; July, 1896, to March, 1898, Superintendent G.T.R. at London, Ont.; Mar., 1898, to May, 1899, Superintendent G.T.R. and Wabash at St. Thomas, Ont.; May, 1899, to Dec. 31, 1904, Superintendent Middle Division G.T.R. at Toronto.

V. G. R. Vickers, who has been appointed Superintendent Atlantic Division Dominion Express Co., was born at Toronto, Jan. 1, 1866, and entered the service of the Vickers Express Co. as clerk, May, 1884, and was subsequently money clerk and cashier until it withdrew from business Jan. 1, 1899. His subsequent record has been: April, 1899, to June, 1899, city freight solicitor, Dominion Express Co., at Toronto; June, 1889, to May, 1891, agent same company at St. John, N.B., becoming joint agent when the New England Despatch Express Co. was taken in; May, 1891, to Nov., 1901, agent same company, Montreal; Nov., 1901, to Dec., 31 1904, General Agent same company, Montreal.

F. H. McGuigan, who has been appointed Fourth Vice-President G.T.R., with office at Montreal, was born at Cleveland, Ohio, 1850, and entered railway service 1863 as water-boy, Erie and Pittsburg division Pennsylvania Rd., since which he has been consecutively to 1874 in various minor positions, same road; 1874 to 1880, roadmaster same road; April to July, 1880, foreman construction train, St. Louis and Omaha division Wabash Rd.; July, 1880, to Jan., 1885, division roadmaster same road; Jan., 1885, to 1888, General Roadmaster lines west of Mississippi River; 1888 to Dec., 1895, Superintendent Western division same road at Kansas City, Mo.; Feb., 1896, to March, 1902, General Superintendent G.T.R. at Montreal; Mar., 1902, to Dec. 31, 1904, Manager G.T.R.

E. H. Fitzhugh, who has been appointed Third Vice-President, G.T.R., Montreal, was born in Montgomery County, Missouri, in Feb., 1853. He entered railway service in 1873 as clerk in the office of the Master Car Builder, St. Louis, Kansas City and Northern Ry., now a part of the Wabash system. He remained with the Wabash continuously until 1896, having in the meantime risen through the various grades of promotion to the position of Master of Transportation. In 1896 he was appointed Superintendent of the Middle Division of the G.T.R., and in 1899 he became Vice-President and General Manager of the Central Vermont Ry., which position he resigned to go to the Southern Pacific Co. with C. M. Hays, returning to the Central Vermont as Vice-President and General Manager when Mr. Hays came back to the G.T.R. in 1902.

W. G. Brownlee, who has been appointed Superintendent of the G.T.R. Middle Division, at Toronto, was born at Lawrenceville, Ill., Sept. 9, 1858, and entered railway service in 1877, since which he has been consecutively to 1879, operator, Ohio, Mississippi Ry.; 1879 to 1881, operator and train dispatcher, Union Pacific Ry.; 1881 to 1884, train dispatcher and Trainmaster, Denver and Rio Grande Rd.; 1884 to 1887, train dispatcher, Union Pacific Ry., at Laramie, Wyo.; 1887 to 1889, train dispatcher, Missouri Pacific Ry., at Sedalia, Mo.; 1889 to 1892, Chief Dispatcher, same road, at St. Louis, Mo.; 1892 to Feb., 1900, Division Superintendent, same Road, at St. Louis, Mo.; Feb., 1900, to May, 1901, Assistant Superintendent, Eastern Division, G.T.R., at Belleville, Ont.; June, 1901, to March, 1902, Superintendent, Eastern Division, same road, at Montreal; Mar., 1902, to Dec. 31, 1904, Superintendent, Western Division, G.T.R., Detroit, Mich.

W. G. Ross, who has been elected President of the Canadian Street Railway Association, and whose portrait appears on the first page of this issue, was born in Montreal, Aug. 6, 1863. He was engaged in auditing and

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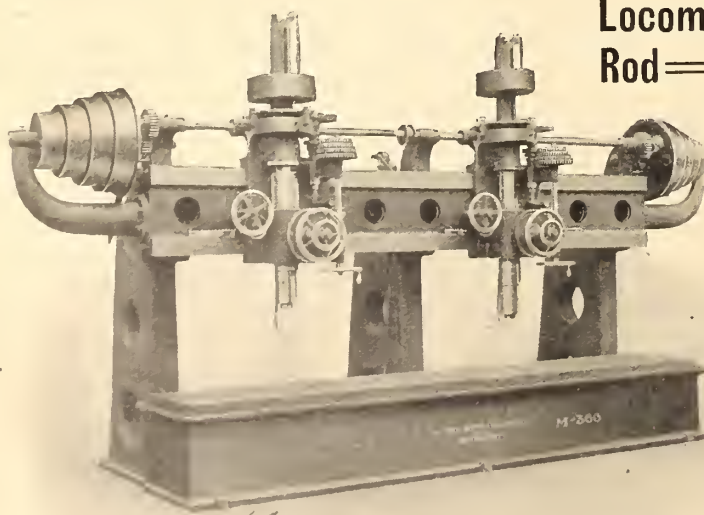
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DUNDAS, Ontario, Canada

accountancy work with his father as early as 1880, and was subsequently successively Secretary, Treasurer and Assistant Manager of the Windsor Hotel Co., Montreal. He became associated, in 1892, with Jas. Ross, who was then developing street railways in Canada, and in organizing the finances of the same. He has been Comptroller and Secretary-Treasurer of the Montreal Street Ry. Co., but is now Managing Director of the same. He is also Managing Director of the Montreal Park and Island Ry., General Manager of the Suburban Tramway and Power Co., Treasurer of the Mexican Light, Heat and Power Co., and director of a number of other companies in which the same financial interests are concerned. He is President for the current year of the Street Railway Accountants' Association of America.

Frank W. Morse, who has been appointed Vice-President and General Manager G.T. Pacific Ry., has resigned his position as Third Vice-President of the G.T.R. He graduated in 1885, and at once entered railway service with the Wabash Rd., at Springfield, Ill. Promotions from time to time took him to Quincy, Ill.; Des Moines, Iowa, and St. Louis, Mo. In 1887 he severed his connection with the Wabash and entered the service of the Pan Handle Rd., which was composed of the Denver, Texas and Gulf; Denver, Texas and Fort Worth and Fort Worth and Denver City railroads, at that time being under construction. After it had been completed and successfully operated, Mr. Morse, at the solicitation of C. M. Hays, at the time of the consolidation of the Wabash Western and Wabash railroads into the present Wabash System, returned to that company, and was located at Fort Wayne, Ind., remaining until Mr. Hays called him to Canada in 1896, to become Superintendent of Motive Power of the G.T.R. He was appointed Third Vice-President in 1902, and went over the route of the projected G.T.P. Ry. in 1902-03. He was elected Vice-President on the organization of the G.T.P. Ry. Co. in Aug., 1904.

The Bank of Montreal has opened a branch at the C.P.R. Angus shops, Montreal.

B. W. Folger, Manager of the Niagara Navigation Co., has gone to England, where he will look into the latest developments in passenger steamboats. It is altogether likely that the company may decide to add another boat to its fleet in the near future.

In political circles in Quebec it is stated that the Dominion Government will ask for power during the current session to increase the number of members of the Transcontinental Railway Commission to five, and that one of the new members will be from that city.

G. H. Webster, heretofore Division Engineer C.P.R. at Vancouver, B. C., has been appointed President of the B. C. General Contract Co. (Ltd.), a company which is at present engaged in constructing the foundations of the new C.P.R. hotel at Victoria, B.C.

The Westinghouse Co.'s Publishing Department has issued a useful pocket calendar and diary for 1905. Among the miscellaneous information contained in it are 40 pages of facts and figures of value to electricians, engineers and those who have to do with other manufacturing plants. There is also a good deal of information of use to the general reader.

Towne—They ought to run more trolley cars. Do you know, I stood on the corner last night while five cars went by and I couldn't get on.

Browne—Why not?

Towne—Too full.

Browne—You were? Well, they're very strict about that.

Railway Track Laid in 1904.

In accordance with our custom, circulars were sent out, Dec. 31, to all steam and electric railways in Canada, asking particulars of track laid during 1904. Below is a compilation of the figures received, together with approximated figures for lines from which returns have not been received. The approximated figures are subject to revision.

The total length of new track, exclusive of double-tracking and sidings, laid during 1904, actually reported and approximated is:—Steam railways, 859.00 miles; electric railways, 50.35 miles; total 909.35 miles. The greatest length of track was laid on the Canadian Northern Ry., 441 miles; the C.P.R. being second with 101 miles and the Halifax and South-Western Ry. third with 91.61 miles. Including in the Canadian Northern Ry. mileage the track laid on other Mackenzie, Mann & Co.'s lines, there was a total of 532.61 miles laid by C.N.Ry. interests during the year, against 352.30 miles laid in 1903. The Great Northern Ry., U.S., laid 39.89 miles of additional track on its Canadian lines. New track was laid on 19 different lines of steam railway. The Minneapolis, St. Paul and Sault Ste. Marie Ry., a subsidiary line of the C.P.R. in the U.S., laid during 1904, track from Ottotail, Minn., to the International boundary at Emerson, Man., 209 miles.

STEAM RAILWAYS.

	Miles.	Miles.
ALBERTA RY. AND IRRIGATION CO.—From St. Mary's River to Cardston	5.00	
Raley Jct. towards Kimball.....	7.00	12.00

ALGOMA CENTRAL AND HUDSON BAY RY.—From mileage 64 to mileage 66.....		2.00
--	--	------

BRUCE MINES AND ALGOMA RY.—From Bruce to Coal Docks.....		3.00
--	--	------

CANADIAN NORTHERN RY.

Rosburn branch.....	44.00
Ridgeville branch.....	12.00
Arizona branch.....	21.00
Carberry branch.....	5.00
Greenway branch.....	52.00
Oak Point branch.....	17.00
Carberry-Brandon branch.....	2.00
Springfield branch.....	9.00

Grand View extension, from mileage 92.50 beyond Grand View to near the elbow of the South Saskatchewan River.....	215.00
---	--------

Prince Albert extension, from mileage 67.78 to the crossing of the South Saskatchewan River.....	64.00
	441.00

CANADIAN PACIFIC RY.—Pheasant Hills branch from Abernethy to Lip-ton, Assa.....	29.00
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Arcola branch, from Francis, Assa., to Arcola, Man.....	72.00
	101.00

CROW'S NEST SOUTHERN RY.—From Swinton to Fernie, B.C. (approximate).....	9.82
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HALIFAX AND SOUTH-WESTERN RY.—From Halifax towards Mahone, N.S. From Bridgewater to Bristol, N.S.....	58.41
	30.33

From Middleton to Victoria Beach (approximate).....	2.87
	91.61

INTERNATIONAL RY OF NEW BRUNSWICK.—From track end, 1903 to Upsalquitch River (approximate)	14.00
--	-------

JAMES BAY RY.—From main line to Parry Sound Harbor, Ont.....	1.50
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LINDSAY, BOBCAYGEON AND PONTYPOOL RY.—From Burketon to Bobcaygeon, Ont.....	39.00
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MORRISSEY, FERNIE AND MICHEL RY.—From Crow's Nest Southern Ry to coke ovens at Fernie, B.C.....	1.07
---	------

NEW BRUNSWICK COAL AND RY. Co.—Spur to reach coal mines, Minto, N.B.....	1.00
--	------

ORFORD MOUNTAIN RY.—From Eastman to Pottton Springs, Que... From Kingsbury to Windsor Mills, Que.....	12.00
	2.00

PRINCE EDWARD ISLAND RY.—From Murray River to Murray Harbor (approximate).....	14.00
	5.50

QUEBEC AND LAKE ST. JOHN RY.—From Valcartier to Gosford, Que... From La Tuque Jct. towards La Tuque, Que.....	3.00
	1.00

		4.00
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	Miles.	Miles.
QUEBEC BRIDGE AND RY. Co.—From Intercolonial Ry. towards Bridge, Que.....		1 00
SYDNEY AND LOUISBURG RY.—From Caledonia Jct. to Colliery 6... From main line to Marconi station.....	5.50	1.00
		6.50
TEMISKAMING AND NORTHERN ONTARIO RY.—From Redwater Lake to New Liskeard.....	56.00	
From New Liskeard northerly.....	26.00	82.00
VANCOUVER, VICTORIA AND EASTERN RY.—From Grand Forks to Phoenix, B.C.....	23.80	
From Grand Forks to Granby Smelter, B.C.....	5.20	29.00

Following are the figures for the

ELECTRIC RAILWAYS.

	Miles.	Miles.
EGERTON TRAMWAY CO.—From Westville to New Glasgow, N.S. (approximate).....	8.50	

GRAND VALLEY RY.—From Paris to Galt, Ont. (approximate).....		13.00
--	--	-------

LONDON STREET RY.—South street belt line.....		1.00
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MONTREAL STREET RY.—Various extensions.....		4.35
---	--	------

PRESTON AND BERLIN ELECTRIC RY.—From Berlin to Waterloo, Ont.		2.00
---	--	------

SARNIA STREET RY.—From Sarnia to Lake Huron Park, Ont.....		3.50
--	--	------

SOUTHWESTERN TRACTION CO.—From London to St. Thomas, Ont..		16.00
--	--	-------

TORONTO AND YORK RADIAL RY.—Scarboro Division.....		2.00
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SUMMARY BY PROVINCES.

	Steam.	Electric
Northwest Territories.....	392.00	
Manitoba.....	162.00	
Ontario.....	127.50	39.85
Nova Scotia.....	98.11	8.50
British Columbia.....	39.89	
Quebec.....	19.00	
New Brunswick.....	15.00	
Prince Edward Island.....	5.50	
	859.00	50.35

Total Steam and Electric..... 909.35

COMPARATIVE TOTALS FOR YEARS 1901 TO 1904

	Steam.	Electric.	Total.
1901.....	473.99	23.86	497.85
1902.....	501.72	78.59	510.30
1903.....	656.67	79.00	726.67
1904.....	859.00	50.35	909.35

Canadian Northern Ry. Earnings.—Gross earnings for Dec., \$384,600; net earnings, \$135,100; against \$279,200 gross and \$95,300 net for Dec., 1903. The mileage was increased to 1,579 miles in Dec., an increase of 229 miles when compared with Dec., 1903. The gross earnings for the six months ended Dec. 31 amounted to \$2,098,700 and the net earnings to \$722,900, against \$1,728,000 gross and \$597,600 net for same period, 1903.

Ottawa and New York Ry.—The officers and directors of the O. and N.Y. Ry., and the New York and Ottawa Rd., appointed on the reorganization of the companies, on the transfer to New York Central and Hudson River Ry. interests are: President, W. H. Newman; First Vice-President, E. V. W. Rossiter; Second Vice-President, W. C. Brown; Third Vice-President, J. Carstensen; Fourth Vice-President, W. J. Wilgus, Treasurer, E. L. Rossiter. H. W. Gays, who was President and Receiver under the old organization, has been appointed General Manager.

The Canadian Westinghouse Co. has issued a circular on oil switches and oil circuit breakers.

The Canadian General Electric Co. has issued sec. 2 of its supply catalogue, which deals with cabinet panels, fuse blocks, cut-outs, fuses, etc.

The B. Greening Wire Co., Hamilton, Ont., has issued a wire rope catalogue which deals very fully with every kind of wire rope likely to be called for, for contractors, power and general uses. The breaking strains and proper working loads are given, with other valuable information for users of rope.

Northern Navigation Co.'s Report.

The President of the Northern Navigation Co. of Ontario, H. C. Hammond, has set a commendable example by sending the annual report for the year 1904 to the shareholders some days in advance of the annual meeting. It is as follows:—

"On Feb. 2, 1904, E. B. Osler resigned from the board and H. C. Hammond was elected a director and also President. C. T. Long, Manager, having resigned, the board engaged H. H. Gildersleeve in his stead, and C. H. Nicholson as Traffic Manager. Navigation opened on May 7, a month later than the preceding year, and during the year all business offered was handled in a satisfactory manner, with the exception that, owing to the heavy fogs prevailing in the Georgian Bay Division during the first six weeks, the time of the steamers was rather irregular. The Germanic did not begin running until May 21, and the Majestic on June 28, while the Britannic was only required for a single trip. Owing to the coolness during the earlier portion of the season, and the diversion of travel due to the St. Louis Exposition, 1904 was an off year for passenger traffic on the lakes. The shrinkage in revenue as compared with 1903 was, roundly:—Passenger, \$39,000; freight, \$50,000. Against this, however, the cost of operating compared with last year was \$102,500 less, of which a considerable amount was saved owing to there being two steamers less in commission, owing to the Majestic not starting until June 28, and also

OCEAN STEAMSHIP AGENCIES

AMERICAN LINE.

PLYMOUTH — CHERBOURG —
SOUTHAMPTON.

Sailing from New York, Saturdays, at
9.30 a.m.

PHILADELPHIA—LIVERPOOL.

Sailing from Philadelphia on Saturdays.

ATLANTIC TRANSPORT LINE.

NEW YORK—LONDON.

Sailing from New York on Saturdays.

DOMINION LINE.

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MONTREAL TO AVONMOUTH DOCKS,
(Bristol and Antwerp.)

LEYLAND LINE.

BOSTON—LIVERPOOL.

Sailing from Boston on Saturdays.

RED STAR LINE.

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Calling at Dover for London and Paris.

Sailing from New York, Sat-
urdays, at 10.30 a.m.

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Regular Weekly Service.

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where accommodation can be reserved and
tickets secured.

CHAS. A. PIPON

Passenger Agent for Ontario,
41 King St. East, Toronto.

N. CURRY, President.

N. A. RHODES, Vice-President.

J. M. CURRY, Sec.-Treas

CAPITAL, \$1,000,000.

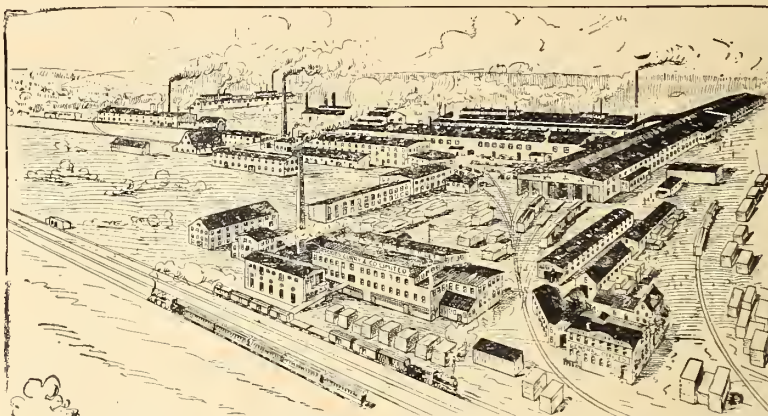
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Special Cars for All Purposes.



Car Wheels, Axles, Forgings, Castings, Etc.

CAPACITY PER MONTH

300 Freight Cars	4 Passenger Cars	4 Snow Plows	3,000 Car Wheels
2,500 Car Axles	500 tons Castings	1,000 tons Forgings	

CANADIAN NORTHERN RAILWAY

THE NEW CANADIAN HIGHWAY FROM PORT ARTHUR, THE
HEAD OF LAKE SUPERIOR, TO—

**FORT FRANCES
WINNIPEG
PORTAGE LA PRAIRIE
BRANDON**

**MORRIS
EMERSON
CARMAN
HARTNEY**

**GLADSTONE
NEEPAWA
DAUPHIN
SWAN RIVER**

Line surveyed and now under construction to:—

PRINCE ALBERT

BATTLEFORD

EDMONTON

FREIGHT:—Shipments are handled from points in Eastern Canada, either Grand Trunk or Canadian Pacific Railways, via North Bay to Port Arthur, thence Canadian Northern Railway.

PASSENGER:—Passengers destined to points on the Canadian Northern Railway north, south and west of Winnipeg, can purchase through tickets via Chicago and St. Paul, where connection is made with the Canadian Northern Flyer for Winnipeg via Great Northern Railway, also with Northern Pacific Railway.

Freight Rates, Folders and other Information furnished on
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MONTREAL, QUE.

WM. PHILLIPS, G. E. A.,
TORONTO, ONT.

GEO. H. SHAW, Traffic Manager,
WINNIPEG, MAN.

in consequence of the later opening of "navigation and a general saving in the operating expenses of the steamers, leaving the net receipts for 1904 \$46,001.23, against \$26,397.60 for 1903.

"On looking into the claim department the management found a very large number of claims which had accumulated for several years without payment, and after thorough investigation they have paid for claims originating in 1903 and earlier years \$25,316.51, which has been charged to profit and loss account, leaving a balance at the credit of that account carried forward \$19,808.01. In the last annual report \$90,000 was shown as a Rest account. Your directors during the past year have expended therefrom \$14,340.78 upon reconstruction and permanent repairs, which they consider should not be charged to the year's operations. Your directors propose to charge this account, \$42,478.28 applied in reduction of the valuation of the fleet, leaving the remaining \$33,180.94 to be applied in further reconstruction and repairs, and it is probable that the greater portion of this amount will be required before the opening of navigation.

"In March last the President became acquainted with the fact that the annual report issued for the year 1902 was not correct as to the earnings of the steamers. Instead of being, as reported, about \$88,000, they were in reality \$30,000 less, this amount having been introduced in some way in transferring the accounts of the North-West Transportation Co. at Sarnia to this company's books at Collingwood. The late J. J. Long, as head of the company, signed that report, and your President wrote to him in Europe asking for particulars as to how the figures were arrived at. Mr. Long replied that it would be explained on his arrival in Canada. He returned to Toronto on Sunday, June 12, and the President had interviews with him on the Monday and Tuesday following, but without any result as to clearing up the discrepancy. The matter subsequently was placed in the hands of solicitors, and on June 30 the solicitors met and arranged for a settlement, by Mr. Long paying to the company an amount in full satisfaction of any liability he might be under. It was understood that the acceptance of this settlement would be recommended by the President to the board, and when approved by them would be submitted to the shareholders for confirmation. Unfortunately Mr. Long died before the transaction could be completed, but your directors were in hopes that the executors of his estate would carry out the settlement arranged by the solicitors on his account before his death. The executors declined to do so, and Barwick, Aylesworth, Wright & Moss, the solicitors who are acting for the company in this matter, having advised that the company has a claim against the estate of the late Mr. Long, your directors have instructed that an endeavor be made to collect the amount."

ASSETS.

Nine steamers.....	\$870,000.00	
Building and machin'y parts.....	7,389.01	
		\$877,389.01
Fuel and supplies.....	\$ 11,244.82	
Insurance unexpired.....	8,730.33	
Insurance receivable.....	5,791.21	
Accounts receivable.....	13,470.22	
Stock, Merchants' Dock, Gore Bay.....	500.00	
Lake Superior Corporation bond.....	1,000.00	
		\$ 40,736.58
		\$ 918,125.59

LIABILITIES.

To Shareholders:		
Capital stock.....	\$840,000.00	
Steamers' renewal fund.....	33,180.94	
Profit and loss.....	19,808.01	
		\$892,988.95
To the Public:		
Bank of Toronto.....	\$ 23,366.19	
Accounts payable.....	1,770.45	
		\$ 25,136.64
		\$918,125.59

PROFIT AND LOSS ACCOUNT.

Balance from 1903.....	\$	123.29
Gross earnings.....	\$421,890.61	
Total expenditure.....	378,490.62	
Net earnings of steamers.....	43,399.99	
Lake Superior Corporation Trust Bond.....	1,000.00	
Cash (in settlement of amt. written off in 1903).....	135.64	
Sundry receipts.....	1,465.60	
		46,001.23
		\$ 46,124.52
Less claims of 1903 and earlier paid in 1904.....	\$ 25,316.51	
Estimate of accounts of 1903 unadjusted.....	1,000.00	
		26,316.51
		\$ 19,808.01

W. Hendrie, who was opposed to the reelection of J. J. Long on the board at the last annual meeting, and who stated that he would not sit on the board with him, resigned, and Lt.-Col. J. S. Hendrie was elected a director in his place.

The annual meeting was held in Toronto, Jan. 31, too late for the proceedings thereof to be reported in this issue.

Passenger Meetings at Buffalo.

Three important passenger meetings were held in the Transportation Club's rooms, Lafayette Hotel, Buffalo, N.Y., on Jan. 18, 19 and 20. The rate clerks of the lines comprised in the Niagara Frontier Summer Rate Committee met on Jan. 18 and arranged details as far as possible. The committee met on Jan. 19 at 11 a.m. In the absence of the Chairman, H. H. Gildersleeve, Manager of the Northern Navigation Co., C. H. Nicholson, Traffic Manager of that company, called the meeting to order. J. E. Bentley, General Passenger Agent, Central Vermont Ry., was elected Chairman for the current year; G. C. Wells, Assistant General Passenger Agent C.P.R., Montreal, performed his duties as secretary.

The following lines were represented:—Algoma Central S.S. Line, Anchor Line, Big Four Route, Boston and Maine Rd., Buffalo, Rochester and Pittsburg Ry., Canadian Pacific Ry., Cleveland and Buffalo Transit Co., Detroit and Buffalo Steamboat Co., Detroit and Cleveland Steamboat Co., Delaware, Lackawanna and Western Rd., Eastern Steamship Co., Erie Rd., Grand Trunk Ry., Hudson River Day Line, Intercolonial Ry., Lake Ontario and Bay of Quinte Steamboat Co., Lake Erie and Western Ry., Lehigh Valley Rd., Montreal, Rochester and Quebec Transit Co., Michigan Central Rd., Muskoka Lakes Navigation and Hotel Co., New York Central Rd., Northern Navigation Co. of Ontario, Northern Steamship Co., Niagara Navigation Co., Niagara Gorge Rd., Ottawa River Navigation Co., Pennsylvania Rd., Philadelphia and Reading Ry., Richelieu and Ontario Navigation Co., Rutland Rd., Toronto, Hamilton and Buffalo Ry., West Shore Rd., United States and Dominion Transportation Co. The rate sheet as checked over by the rate clerks was adopted, there being no very material change in rates from last year. It was decided to hold next year's meeting at the King Edward Hotel, Toronto, on a date to be decided by the Chairman, with the understanding that hereafter meetings shall be held alternately in Toronto and Buffalo, which are considered the most central points at which a good representation of members can be obtained.

The Great Lakes and St. Lawrence River Rate Committee met on Jan. 19 at 2 p.m., C. E. Markham, G.P.A. Anchor Line, in the chair, and immediately adjourned until the following morning at 10. On resuming, the following lines were represented:—Algoma Central Steamship Line, Anchor Line, Canadian Pacific Ry., Cleveland and Buffalo Transit Co., Detroit and Buffalo Steamboat

Co., Detroit and Cleveland Navigation Co., Goodrich Transportation Co., Grand Trunk Ry., Huntsville, Lake of Bays and Lake Simcoe Navigation Co., Lake Michigan and Lake Superior Transportation Co., Lake Ontario and Bay of Quinte Steamboat Co., Magnesian River and Lake Steamboat Co., Manitou Steamship Co., Michigan Steamship Co., Montreal, Rochester and Quebec Transit Co., Muskoka Lakes Navigation and Hotel Co., Niagara Gorge Rd., Niagara Navigation Co., Northern Michigan Transportation Co., Northern Navigation Co. of Ontario, Northern Steamship Co., Ottawa River Navigation Co., Parry Sound and Penetang Navigation Co., Richelieu and Ontario Navigation Co., Rideau Lakes Navigation Co., South Haven Line Steamers, St. Lawrence River Steamboat Co., Thousand Islands Steamboat Co., United States and Dominion Transportation Co., White Line Transportation Co., White Star Line. W. M. Lowrie, G.P.A. Northern Steamship Co., Buffalo, was elected Chairman for the current year, and Jas. Morrison, chief rate clerk, Passenger Department, C.P.R., Montreal, Secretary. The rates and arrangements for the season of 1905, as prepared by the rate clerks, were approved. It was decided to hold the next annual meeting at the King Edward Hotel, Toronto.

The International Water Lines Passenger Association met Jan. 20 at 11 a.m., the following lines being represented:—Albermarle Steam Nav. Co., Algoma Central S.S. Line, Anchor Line, Ashley-Dustin Steamers, Canadian Pacific S.S. Line, Citizens' Steamboat Co., Hudson River, Chicago and Muskegon Trans. Co., Crosby Transportation Co., Detroit, Belle Isle and Windsor Ferry Co., Detroit and Buffalo Steamboat Co., Detroit and Cleveland Navigation Co., Dunkley-Williams Co., Goodrich Transportation Co., Harl Steamboat Line, Hudson River Day Line, Lake Michigan and Lake Superior Trans. Co., Lake Ontario and B. of Q. Steamboat Co., Manitou S.S. Co., Michigan S.S. Co., Montreal, Rochester and Quebec Transit Co., Niagara Navigation Co., Northern Michigan Transportation Co., Northern Navigation Co., Northern Steamship Co., Ottawa River Navigation Co., Pere Marquette Line Steamers, People's Evening Line Steamers, Richelieu and Ontario Navigation Co., Rideau Lakes Navigation Co., St. Louis and Tennessee River Packet Co., Thousand Islands and St. Lawrence River Steamboat Co., United States and Dominion Transportation Co., White Line Transportation Co., White Star Line. A. A. Schank, Genl. Supt. and P.T.M., Detroit and Cleveland Navigation Co., and Detroit and Buffalo Steamboat Co., presided, M. H. Nelson performing his duties as Secretary. The work done by the Association during the past year was warmly commended by several of the representatives, and the Secretary was authorized to make such improvements in the passenger fare book as might be considered necessary. The proposal for uniformity in charges account transfer, receiving line to pay, was agreed to, also the issuing of supplements to the publications. The question of better representation in station list of Official Guide was very fully discussed, and the Assistant Editor, who was present, promised to meet the wishes of the Association. The following subjects which were listed for consideration were not approved:—Uniformity in stop-over regulations on limited tickets, including excursion tickets at authorized points, and allowance of stop-over on return trip at authorized points on excursion tickets ten days within the final limit of the excursions, irrespective of the return transit limit. Uniformity in dealing with tickets lost by passengers, to be bulletined on merits of ease. Effect on regular traffic of reduced rates made for large conventions. Abolishment of Sunday excursions. Officers were elected as follows: President, C. E. Markham, G.P.A., Anchor

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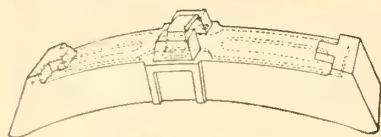
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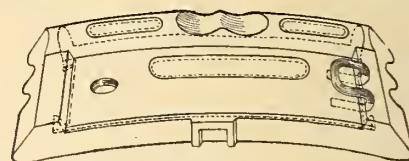
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Line, Buffalo; Vice-President, J. Berolzheimer, G.P.A., Manitou S.S., Chicago; Executive Committee, 1 year, R. F. Church, G.P.A., Northern Michigan Transportation Co., Chicago; 2 years, F. B. Hibbard, G.P.A., Hudson River Day Line, New York; F. C. Reynolds, G.T.M., Pere Marquette Line Steamers, remains on the committee, his term not having expired; Secretary, M. H. Nelson, Buffalo; Auditors, C. E. E. Ussher, G.P.A., Canadian Pacific Ry., Montreal; A. W. Hepburn, G.P.A., Montreal, Rochester and Quebec Transit Co., Pictou, Ont.; W. H. Cochrane, Manager, Michigan S.S. Co., Chicago. On behalf of Poole Bros., Chicago, C. H. Nicholson presented the retiring President with a gavel made from an ebony and ivory ornament taken from the captain's cabin of the steamer *Walk in the Water*, which the donors said they believed to be the first boat on the Great Lakes propelled by steam. She was built at Flat Rock, N.Y., in May, 1818, and left Buffalo on her first trip to Detroit on Aug. 23, and left Detroit on the return trip on Aug. 27. She was wrecked at Buffalo Creek, Buffalo, Nov. 21, 1821. Her captain was Joe Fish, and the material used in the gavel was secured from his nephew, H. S. Fish, now living near Tonawanda, N.Y. It was decided to hold the next annual meeting of the Association at the King Edward Hotel, Toronto, following the meetings of the Niagara Frontier and Great Lakes and St. Lawrence River Rate Committees.

On the afternoon of Jan. 19, a number of the delegates went from Buffalo to Niagara Falls, thence by the Niagara Falls Park and River Ry. to Queenston and up the Gorge Route, as the guests of the International Ry. and the Niagara Gorge Rd., J. E. Stevenson, G.P.A. of the I.R. Co., and B. L. Jones, G.M. of the N.G.R., accompanying them. The Transportation Club of Buffalo placed its rooms at the disposal of the delegates, and the Buffalo Passenger Committee entertained the delegates at a theatre party. Most of the delegates stayed at the Lafayette Hotel, a new and thoroughly up-to-date house, which is an important addition to the list of Buffalo hotels.

At the various meetings resolutions of regret at the death of John Foy were passed.

D. D. Mann, Vice-President Canadian Northern Ry., and family are in Florida.

W. Mackenzie, President Canadian Northern Ry., will leave Toronto for England during the first week in Feb.

F. H. Hopkins & Co., and W. H. C. Musson & Co., Montreal, have sent attractive calendars to their customers, etc.

The Canada Atlantic Ry. continues under the management of its old officials, and, we are advised, that it is likely to so continue until the legislation now before the Dominion Parliament concerning the securities of the Canada Atlantic Ry. is completed.

The Ottawa and New York Ry., which was recently acquired in the interests of the New York Central and Hudson River Rd., is issuing mileage books covering 1,000 miles for \$20. These mileage tickets will be available over the New York and Ottawa Rd. from the International boundary to Tupper Lake, N.Y.; and N.Y.C. and H.R. Rd. mileage tickets will be good over the N.Y. and O. Rd. as well as over the O. and N.Y. Rd.

Engineers' Club of Toronto.

At the annual meeting on Jan. 12, reports were presented showing a satisfactory financial condition and an increasing interest in the work of the club. The officers for the current year are: President, R. F. Tate; Resident Engineer, Canadian Northern Ry.; First Vice-President, F. L. Sommerville, Resident Engineer, G.T.R.; Second Vice-President, C. B. Smith, Consulting Engineer;

Directors: W. H. Patton, Signal Engineer, G.T.R.; G. R. Mickle, School of Practical Science; A. B. Barry, Medical Health Office, Toronto; Treasurer, W. J. Bowers; Secretary, Willis Chipman.

The newly elected President delivered his inaugural address to the members Jan. 19, briefly reviewing the work of the year, the chief events of which were the summer excursion to De Cew Falls, where the Hamilton Cataract Light, Power and Traction Co. had in course of extension large works for power development purposes, and the visit of a delegation of the Institute of Civil Engineers of Great Britain. Referring to the engineering events of the year, he said the electrical power development in Canada will compare favorably with other countries, and that there is at Niagara Falls alone the largest aggregate of electrical power in the world. In steam railway projects Canada is ahead of any other country. The country had a bright future before it, and he felt sure that the club would continue to be more and more successful as years passed by. At the next regular monthly meeting the members would be called upon to consider a proposition from the Canadian Society of Civil Engineers, to form a branch in Toronto, in affiliation with the club.

C.P.R. Betterments, Construction, Etc.

Kaladar Spur.—The surveys for the construction of a spur line from Kaladar to the mining properties of the American Asbestos Co., in Elzevir township, have been suspended, and we are advised that no further action will be taken at present. (Jan., pg. 25.)

Branch Line to Stratford.—A joint committee, representing the Stratford, Ont., City Council and Board of Trade, has recommended to the council terms of an agreement between the city and the C.P.R. for the construction of a branch into Stratford from the Guelph and Goderich Ry., now under construction. It is proposed that the line will branch from the G. and G. Ry. near Conestogo, and will enter the city near Victoria Lake. The city will provide the right of way in the city, and an arrangement will be made with the G.T.R. by which that company's lines will be run over so as to give connection with the factories in the east end of the city. For the present it is proposed that Stratford will be the terminus of the branch, although there is power to extend the line to St. Marys. We were advised Jan. 18, that nothing has been decided in regard to this proposed work. A reconnaissance survey has been made, but nothing further has been done.

Toronto-Sudbury Line.—The right of way is being purchased for this line between Bolton and Craighurst, Ont. The plans of the lands being acquired show that the route to be followed from the southern end will deviate from the Toronto-Owen Sound line at Bolton, and not at Kleinburg, as at first proposed, and will proceed by Alliston to Craighurst, to which point the line has been permanently located. The route between Craighurst and Parry Sound is being located via Coldwater, and it is expected that a route will be laid out without crossing the route of the James Bay Ry. Residents of Barrie are desirous of obtaining a spur line into that town from Midhurst or other suitable point on the line. (Nov., 1904, pg. 401.)

Fort William to Winnipeg Double Track.—Press reports recently stated that a contract for the grading for this work has been let to Foley Bros., but we were advised Jan. 16 that this was not the case, as it had not been definitely decided whether the work would be gone on with this season or not. (Jan., pg. 25.)

Central Division.—During Feb. there will be laid on this division 121 miles of 80-lb. steel, replacing lighter rails. The lighter rails will be used on branch lines, etc.

Gradient Revision Swift Current Section.

The gradient revision on this section has been completed from Nord, mileage 18.7, to west of Secretan, at mileage 49.5 west of Moose Jaw, Assa., and has been passed by the Government Inspecting Engineer for traffic.

Western Division.—There will be laid on the main line in this division during Feb., 82 miles of 80-lb. steel, replacing lighter rails, which will be used on branch lines, etc.

Pacific Division.—The light rail on 86 miles of the main line on the Pacific division will be replaced during Feb. by 80-lb. steel.

Passenger and Freight Tariffs.

A special edition of the Canada Gazette, recently contained partial details of the standard passenger and freight tariffs which had been filed with and approved by the Board of Railway Commissioners under the terms of sec. 261 of the Railway Act. Owing to the fact that the standard tariffs so published showed higher rates for passengers than those actually charged, a number of daily papers published sensational statements about the increase of fares which was about to be made, and reference was made to the efforts made during the last session of the Dominion Parliament to obtain a reduction to a two cent a mile rate. That an increase should be made in the face of an agitation for a decrease from the existing rate was characterized as little short of an outrage. Enquiry, however, elicited the information that neither the G.T.R. nor the C.P.R. had the slightest intention to increase the fares charged on their lines.

G. T. Bell, General Passenger and Ticket Agent, G.T.R., in discussing the matter, said: "The railways are obliged to give such notice, but no increase in rates is contemplated. I may explain that on certain branch or spur lines the maximum rate is exacted and has been for years, while on other parts of the system the rate is much below the maximum."

R. Kerr, Passenger Traffic Manager C.P.R., said in an interview: "If a change is made in passenger rates they will go down, not up. The rates have not been raised one cent, neither is there an increase in the tariff even contemplated. We have two tariffs, the standard tariff, which we are required to publish in the Canada Gazette, and the working tariff, which we file. Passenger rates are charged, generally speaking, according to this special tariff, which we do not publish. The standard tariff is the one which contains the maximum rates, rates which we seldom charge, however, as the special tariff is the one which obtains in most cases."

An official statement was given out Dec. 8, by J. Hardwell, Traffic Officer of the Board of Railway Commissioners, explaining what the tariffs really meant and why they had been published. "There are," said Mr. Hardwell, "three classes of railway tariffs—standard, special, and competitive. Under the amended railway act the standard or maximum tariffs of the Canadian railways have to be approved by the Board of Railway Commissioners and published in the Canada Gazette before Dec. 31. Otherwise the railway companies could not legally charge tolls. It was impossible within the time mentioned to inquire into all the circumstances and conditions under which, at various times, standard tariffs had been prepared. Hence, in order to allow the companies to legally collect tolls, the Board simply approved the rates which had been in force for some years past, under the authority of the Governor General in Council. The special and competitive rates have not to be published. They are used until disallowed. The maximum rates, having been approved, were published in the Canada Gazette. But this approval does not vitiate the right of the Board to rescind, amend or alter any of the maximum tariffs. The

publication of the standard tariffs affords the opportunity to anyone who feels aggrieved to appeal against them to the Board. Then the Board can take such action as it deems fit. I may say that up to the end of Nov. the tariffs and supplements filed with the Commission amounted to close on 7,000 for freight traffic alone. You can see from this fact what an enormous amount of work in the way of supervision is here involved."

The standard tariffs filed by and approved for the various companies were published in subsequent editions of the Gazette, from which the following details are compiled:—

PASSENGER RATES.

Algoma Central and Hudson Bay Ry.—The tables approved include:—Between Sault Ste.

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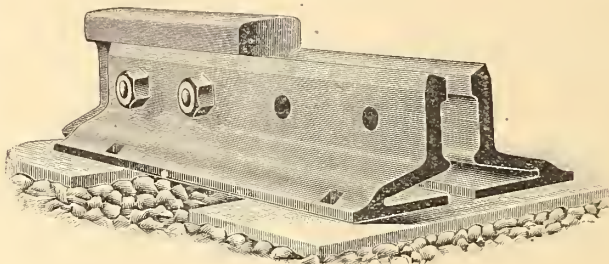
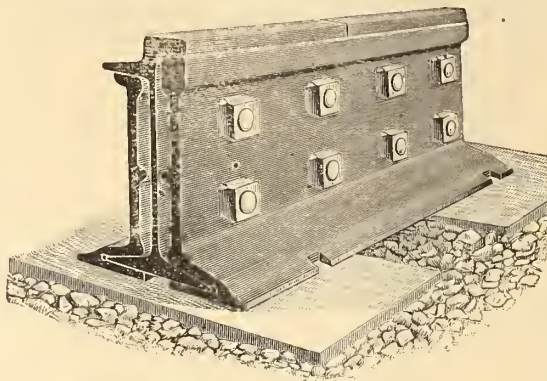
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Marie, Tagona, and Poplar Lake, mileage 63 and intermediate points, issued Oct. 18, 1904; between Sault Ste. Marie, Tagona and Rock Camp, mileage 50 and intermediate points, issued Mar. 1, 1904; between Sault Ste. Marie, Tagona and Beaver Camp, mileage 54 and intermediate points, issued Dec. 17, 1903; local passenger tariff between stations on main line, issued June 8, 1903; Algoma Central Steamship Line, fares on steamers between Sault Ste. Marie and Killarney, Ont., issued Aug. 1, 1904; Algoma Central Steamship Line, fares on steamers between Sault Ste. Marie and Windsor, Ont., and Toledo, Ohio, issued July 19, 1904; A.C. Ry. steamship line, fares between Sault Ste. Marie to Michipicoten, Ont., inclusive, issued May 1, 1901; fares on steamships between Michipicoten Island and Rosspoint, Ont., issued Sept. 1, 1903; table of fares charged on Michipicoten branch railway between Michipicoten and Helen Mine and Josephine Mine, issued June 8, 1903.

Atlantic and Lake Superior Ry.—The standard passenger tariff is based on a rate of 4c. a mile for first class, 3c. a mile second class; return fare, 3c. a mile first class; and half fare for clergymen and nuns.

Canadian Pacific Ry.—The standard passenger tariff is compiled on the following basis:—15c. per capita between St. John and Fairville, N.B.; 10c. per capita between Fredericton and Gibson, N.B.; 10c. per capita between Castlegar Jct. and West Robson, B.C.; four cents a mile between Megantic Que., and the boundary of the State of Maine; Ste. Therese Jct. and St. Eustache, Que.; Ottawa and Prescott, Ont.; Regina, Assa., and Prince Albert, Sask.; Dunmore Jct. and Kootenay Landing, B.C.; Macleod and Stratheona, Alta.; North Star Jct. to Kimberly, B.C.; Marysville Jct. to Marysville, B.C.; Proctor to Midway, B.C.; Castlegar Jct. to Rossland, B.C.; Smelter Jct. to Trail, B.C.; Slocan Jct. to Slocan City, B.C.; Sandon to Nakusp, B.C.; Lardo to Gerrard, B.C.; Granby Jct. to Granby Smelter, B.C.; Exholt Jct. to Phoenix and spurs, B.C.; Greenwood to Greenwood Smelter and spur, B.C.; Sicamous Jct. to Okanagan Landing, B.C.; Vancouver to Steveston, B.C.; and the following steamer lines:—Kootenay Landing to Nelson, B.C.; Pilot Bay to Argenta, B.C.; Gerrard to Trout Lake City, B.C.; Slocan City to Rosebery, B.C.; West Robson to Arrowhead, B.C. Between the following points at 3½c. a mile:—Fairville, N.B., and Maine boundary; West St. John and Fairville, N.B.; Fredericton Jct. and Fredericton, N.B.; McAdam Jct. and St. Andrew, N.B.; Watt Jct. and St. Stephen, N.B.; McAdam Jct. and Edmundston, N.B.; Debec Jct., N.B., and Maine boundary; Aroostook Jct., N.B., and Maine boundary; Gibson and Newburg Jct., N.B.; Montreal, Que., and Ottawa, Ont. (north shore); Ste. Therese Jct. and Nominique, Que.; St. Lin Jct. and St. Lin, Que.; Hull and Waltham, Que.; Millwood Man., and Shebo, Assa.; Kirkella, Man., and 136 mile post, Assa.; Antler and Arcola, Assa. Between the following points at 3½c. a mile:—Perth Jct. and Plaster Rock, N.B.; Megantic and Montreal Jct., Que.; Foster and Sutton Jct., Que.; Foster and Drummondville, Que.; Brigham Jct., Que., and Vermont boundary; Vermont boundary and boundary (Newport branch); Farnham and St. Guillaume, Que.; Farnham and Stanbridge, Que.; Mile End and Montreal Jct., Que.; Montreal and Toronto; Vaudreuil, Que., and Ottawa, Ont.; Rigaud and Point Fortune, Que.; Ottawa and Brockville, Ont.; Burketon Jct. and Bobcaygeon, Ont.; Hull Jct. and Maniwaki, Que.; Carleton Jct. and Pembroke, Ont.; Eganville Jct. and Eganville, Ont.; Toronto and Windsor, Ont.; Leaside Jct. and Toronto Jct., Ont.; Streetsville Jct. and Melville Jct., Ont.; Cataract Jct. and Elora, Ont.; Guelph Jct. and Guelph, Ont.; Woodstock and St. Thomas, Ont.; Toronto and Owen Sound, Ont.; Orangeville and Wingham, Ont.; Glenannan

and Teeswater, Ont. Between the following points at 3c. a mile—St. Martin Jct. and St. Martin, Que.; Joliette Jct. and St. Gabriel, Que.; Berthier Jct. and Berthier, Que.; Piles Jct. and Grandes Piles, Que.; Pembroke and Callander, Ont.; Mattawa, Ont., and Temiskaming Que.; Kipawa Jct. and Kipawa, Que.; Toronto and Hamilton, Ont.; Winnipeg and Souris, Man.; West Selkirk and Winnipeg Beach, Man.; Elm Creek and Carman, Man.; Portage la Prairie and Millwood, Man.; Binscarth and Russell, Man.; Chater and Minnedosa, Man.; Forrest and Lenore, Man.; Rapid City and Mineota, Man.; Wood Bay and Mowbray, Man.; Deloraine and Lyleton, Man.

Central Vermont Ry.—The standard tariff approved has been compiled on a 3c. a mile basis for points between St. Johns, Que., and the Vermont boundary, and S.S.C. Jct. and Waterloo, Que.; 3½c. a mile for points between Farnham and Frelighsburg, Que., and St. Lambert and Farnham, Que.

Grand Trunk Ry.—The standard passenger tariff is compiled on the following basis:—4c. a mile between St. Lambert Jct. and New York State boundary, Rouses Point branch; 3c. a mile between Harrisburg and Tillsonburg Jct., Ont., and between Harrisburg and Guelph, Ont.; and 3½c. a mile between all other points.

Great Northern Ry. of Canada.—The standard passenger tariff for the main line is compiled on a basis of 3c. a mile for the main line and 5c. a mile for the Montford division

Oshawa Ry.—The standard passenger tariff on this electric railway shows a maximum fare of 25c. from Prospect Park or Oshawa, Ont., to Port Oshawa, with 20c. and 15c. fares for other distances; baggage is carried at a rate of 5c. a piece of 100 lbs. or under, and an additional charge of 5c. per 100 lbs. for any additional weight; but not less than 5c. a piece will be charged.

Thousand Islands Ry.—The standard fare tariff shows a fare of 25c. from Gananoque and Thousand Islands Jct., and 10c. and 15c. between other points.

The Esquimaux and Nanaimo Ry.'s passenger tariff is compiled on a basis of 4c. a mile.

Standard tariffs compiled on the basis of 3½c. a mile are approved for the Dominion Atlantic Ry., the Rutland Ry. for its Canadian line, the Temiscouata Ry., (with a table based on 2½c. a mile for second class) and the Wabash Rd.

The standard tariffs of the Halifax and Yarmouth Ry., the Maine Central Rd., for its Canadian line, the Nova Scotia Steel and Coal Co's Ry., Orford Mountain Ry., and the Quebec Central Ry., are compiled on a basis of 3½c. a mile, the latter stipulating for a minimum charge of 10c.

Standard passenger tariffs compiled on a basis of 3c. a mile were approved for the Boston and Maine Rd.; Central Ontario Ry.; Irondale, Bancroft and Ottawa Ry.; Kingston and Pembroke Ry.; New Brunswick Coal and Ry. Co.; and the Perc Marquette Rd., for the Lake Erie and Detroit River Ry.

The Quebec Ry. Light and Power Co.'s passenger tariff is based on a rate of 2c. a mile.

The tariffs approved for the Bay of Quinte Ry., Bedlington and Nelson Ry., British Yukon Ry., and Manitoulin and North Shore Ry. consisted of tables of the fares charged between the different stations on the line, with, in the case of the first named, tables showing mileages, single, return and excursion fares, and commercial travellers' rates, etc.

The notices stating that standard passenger tariffs had been approved for the following lines did not disclose the basis on which they had been compiled: Canada Atlantic Ry., Ottawa and New York Ry., Quebec Southern Ry.

FREIGHT TARIFFS.

The freight tariffs approved and published are described as "Standard Freight Tariff to be applied where no other tariff is in effect,"

and it is set forth that the rates are subject to Canadian freight classification. There is a condition attached to the effect that no single shipment of freight from one consignor to one consignee will be charged less than for 100 lbs. 1st class rate, with a minimum charge of 35c.; the rates are exclusive of cartage.

The tariffs are all given for distances under five miles, for which the charges are per 100 lbs.:—

Class.....	1	2	3	4	5	6	7	8	9	10
Cents.....	8	7	6	5	4	4	4	3	3	3

and are calculated for each five miles up to 100 miles, then for 10 mile or 25 mile distances up to the limit of the mileage of the different companies, the C.P.R. having one table calculated to a distance of 3,000 miles. The tariffs on which the figures above quoted form the basis are approved for Algoma Central and Hudson Bay Ry., Bay of Quinte Ry., Brockville, Westport and Northwestern Ry., Canada Atlantic Ry., Central Ontario Ry., Dominion Atlantic Ry., G.T.R.; Irondale, Bancroft and Ottawa Ry.; Kingston and Pembroke Ry.; Manitoulin and North Shore Ry.; Michigan Central Rd., for the Canada Southern Ry.; New York Central and Hudson River Rd., for the St. Lawrence and Adirondack Ry.; Oshawa Ry.; Ottawa and New York Ry.; Quebec Central Ry.; Quebec Southern Ry.; Thousand Islands Ry.; Temiscouata Ry.; Toronto, Hamilton and Buffalo Ry. Standard tariffs differing in a few of their figures from the starting rates above quoted were approved for the Moncton and Buctouche Ry., and for the Maine Central Rd.'s Canadian line.

(To be continued.)

ELECTRIC RAILWAYS.

Handling Express by Electric Suburban Railways.

By E. A. Evans, General Manager, Quebec Ry., Light and Power Co.

The writer had the honor of submitting a paper to the members of the Canadian Electrical Association in 1902, upon Electrical Suburban Railways, in which he took the ground that steam railroads will, in the near future, handle their suburban and short distance interurban passenger traffic and mail, express, baggage and light local freight by electric motive power. In this paper the writer submitted statements showing the results from passenger traffic, of carrying out this theory upon the existing steam railway running between Quebec, Ste. Anne and St. Joachim, a distance of 25½ miles. These results showed that during the year 1889-1890, the first year's operation, 95,563 passengers were carried, and in 1899-1900, 261,175 passengers were carried; this under the old regime of steam railroading. The next year, 1900-01, under the electric motive system, 537,933 passengers were carried, and last year, 1903-04, 877,310 passengers were carried, of which number 155,980 passengers were carried by the steam trains. By way of explanation, it is necessary to mention that the same number of steam trains arriving and departing at the same hour, are being operated now as in 1899-1900. The passenger receipts, which averaged \$38,246.47 a year during the eleven years of steam operation, last year amounted to \$96,943.47. From this it will be noted that the average fare per passenger has decreased from 18.17 cents to 11.05 cents, showing that the more frequent service permits of and encourages the residents along the railway to visit from village to village, which under the old system was not frequent, and, as there has been no apparent increase in population, accounts for the large increase in travel.

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GENERAL SALES AGENTS

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In 1900, the writer issued instructions to all agents to make a report of all parcels, hand valises, baskets, canes, umbrellas, etc., which were handed in to them to be taken charge of, and for which no charge was being made; in other words, the agents were taking charge of these parcels merely as an act of courtesy and without responsibility. The results showed that large numbers of parcels were being left, and an inspection of the reports showed that these parcels at the Quebec office principally consisted of groceries, meat, laundry, etc., whereas at the wayside stations they consisted of vegetables, cut and uncut flowers, fowl, laundry, etc. Consequently, in the spring of 1901, parcel offices were opened at each station and agents were instructed not to accept the care of any packages without making a charge of five cents for each article for the first 24 hours, and a similar charge for each additional day, and a supply of parcel checks was at the same time issued. This movement created considerable opposition from the regular passengers who, by reason of their having had a privilege for over eleven years, now claimed the same as a right; as a consequence, receipts which were anticipated from agents' reports to amount to several hundred dollars a year did not amount to \$100, and a careful watch at the different stations revealed the fact that residents would bring their parcels to the station, wait the arrival of some friend and then request their friend, who was travelling, to take charge of the same and bring it either to or from town. Grocers in town would be telephoned to from say Mrs. B. to meet a certain train and hand her parcel to Mr. H., who would take charge of it, Mrs. B. generally meeting Mr. H. at destination to take the parcel from him. This condition naturally led to the establishment of an express, baggage and light local freight department, thus attempting (perhaps earlier than anticipated) the last theorem laid down in the paper read to the Canadian Electrical Association, previously referred to—the carriage of the mails having been previously arranged for.

Under steam railway rules, it is generally known that freight charges are arrived at according to classification arranged by the Canadian Freight Association, the different railways of course having their own rates, but abiding by the classification made by the Association. Rule 30 provides for such articles which the Quebec Railway, Light and Power Co. are now carrying under their express, baggage and light local freight department, as follows:—Small consignments of one class, or including articles of several classes, will be charged at actual weight, according to the classification of each article, but no single shipment will be taken for less than 100 lbs. 1st class, exclusive of cartage, minimum charge, 35 cents, with an additional charge of ten cents for each cartage performed by the railway company's cartage agents. Thus it will be seen that the company was unable under this tariff to convey any parcel, no matter how small, for a less charge than 35 cents—in many cases more than the value of the package of rhubarb or other vegetables that was being sent to town. It was therefore necessary to make not only new rates suitable to the special requirements of the district, but also to make new rules and regulations regarding this class of traffic; these rules and regulations came into effect on Dec. 1, 1902, the tariff being as follows:—

Any station to any station,—
For all parcels, small boxes, etc., from 0 to 10 lbs., 5 cents.
For all parcels, over 10 lbs. to 20 lbs. 10 cts.
" " " 20 lbs. to 30 lbs. 15 cts.
" " " 30 lbs. to 50 lbs. 20 cts.
" " " 50 and not over 100 lbs. 25 cts.

and the rules governing the same are as follows:—

EXPRESS FREIGHT.—All goods weighing less than 100 lbs. and offered for shipment, will be carried on

any regular passenger or electric train, with all despatch possible.

Each parcel, box, etc., must be properly packed and addressed in full before a receipt (Form B. 32) is given to the sender. Fresh fish, fresh meat and any other perishable articles must be prepaid. Any dangerous articles will not be accepted except on special orders from the Superintendent.

Agents will use Form B. 33 when way-billing, which must be made in duplicate; one copy of the way-bill to be given to the driver of the electric train or the baggageman of the steam train, and the goods must be forwarded by the first train due to leave after the goods have been accepted for shipment, the other copy of the way-bill will be kept by the agent and accounted for in the same manner as regular freight.

Agents receiving express freight will issue Form B. 34 and notify consignee as quickly as possible, and when goods are delivered a receipt must be taken on Form B. 35, opposite article for which receipt is required. Way-bills received will be accounted for in the same manner as regular freight.

Conductors of all regular trains may accept goods for shipment at any flag station, using Form B. 31 for billing express freight.

Any article weighing over 100 lbs. to be carried by the regular freight trains only and under Canadian Freight classification rules. These regular freight trains are operated by steam in the usual manner.

Agents were instructed to despatch all parcels under the above regulations by the first passenger car at any time of the day or night, to give them in charge of the motorman on electric cars and the baggageman on steam trains, and informed that no excuse would be accepted for not despatching by the first train.

The public immediately took advantage of the facilities thus offered, and the parcel office, while still open for the accommodation of travellers, is practically not made use of. The receipts from this source of revenue the first year amounted to \$300, and last year practically doubled, and is still meeting the appreciation of the public. Passengers in the villages along the line, instead of purchasing from small stores near their residences, travel to town, purchase goods from different stores, have one parcel made of their purchases and sent to the station, to be forwarded by express to destination, instead of having the same deposited in the parcel office and having the trouble to call for it and transport it themselves; and again, from the villages, vegetables of all kinds, cut flowers, etc., are, during the summer, being daily expressed to town to supply the hotels, boarding houses, etc., in the city.

In conclusion, it is pleasing to be able to state that during the two years in which this business has been in operation, only three complaints of delays have been received and not one single package has been lost or gone astray.

Of course it will be noted that the conditions mentioned are different to most suburban electric railways, by reason of their having no agents at the different stopping-places; this, however, is a subject which in the writer's opinion, can in most cases be overcome by the managers of the different roads interested. It seldom happens that there is not some responsible man or woman residing close to the stopping place or flag station, in which case arrangements could most probably be made whereby these persons would be willing to take charge of the packages for a small consideration or commission.

Relieving Congested Traffic at Rush Hours.

By D. McDonald, Manager Montreal Street Ry. Co.

All that has been said and written in regard to other difficult problems of a like nature, such as congestion of traffic in London, the difficulties of getting quickly through the centre of Paris on a gala day, the irritating slowness of a horse car or cable ride through Broadway, up to recent date, the tedious features of all the best plans or rem-

edies that have been already tried to prevent overcrowding in all public places or vehicles—all this verbal and written information would be a fitting preamble to convey to the ordinary reader a faint idea of the difficulty of the problem that we are endeavoring to solve.

We are requested to deal with a question that is difficult of solution. To enter immediately into the practical discussion of this question we must cite certain figures concerning the growth of street railway business that tend to show how quickly the existing rush hour conditions have been thrust upon us and the practical catering that street railway companies all over this continent have furnished in the last ten years to meet the requirements of traffic.

Statistics prove that from 1892 to 1903, the mileage of street railways on this continent has increased from about 8,000 to 25,000 miles, which means practically, on account of transforming electric, that since 1890, which was about the birth year of electric traction on a large scale, 25,000 miles of track were laid at a cost of \$2,150,000,000, and that said street railway companies are now carrying an average of 5,000,000,000 passengers per annum. Why should it not be crowded?

These ten cipher amounts to which the world has been unaccustomed in the way of increased traffic lead us to believe that street railway companies have not spared their efforts to cater to public comfort, especially when we stop to consider that this phenomenal work has been done by 850 companies, and that perhaps less than 100 companies of this number have to deal with the overcrowding problem which we are now discussing.

If we take the existing conditions in towns of 300,000 or 400,000 inhabitants we find that the working population may be one-half that number, and again, that a quarter of said number (100,000 people) usually work in the business, or down-town section of the city, which section is generally limited to a square of about one mile in length and a quarter or a third of a mile in width; 75,000 persons of this 100,000 would like to get home quickly and all want to board cars in 10 or 15 minutes at six o'clock. The question naturally arises how many cars with a capacity of 50 to 60 passengers (seated or standing) will be required to carry this rush conveniently—75,000 divided by 50, equals 1,500 cars. The answer seems easy, and if companies could afford (in our day of cheap fares and transfers) to furnish that number of cars, to be used for 15 or 20 minutes per day, this remedy would seem excellent.

It must not be forgotten that these 1,300 cars are only the rolling stock necessary to provide the desired accommodation for down-town passengers and that at the same hour the rest of the system must be provided for, which might possibly mean 100 or 200 cars more, to provide the same roomy service. But as already stated, the settling of the question would be easy, though impracticable financially for the company, if we did not have to contend with a still greater difficulty, which is time. This time difficulty comes from the natural desire of everybody to rush home at the same hour, which is easier to imagine than to cure. Hence the 1,300 cars above referred to must be rushed through the business centre of the city in 10 or 15 minutes, and this is where the plan becomes impossible.

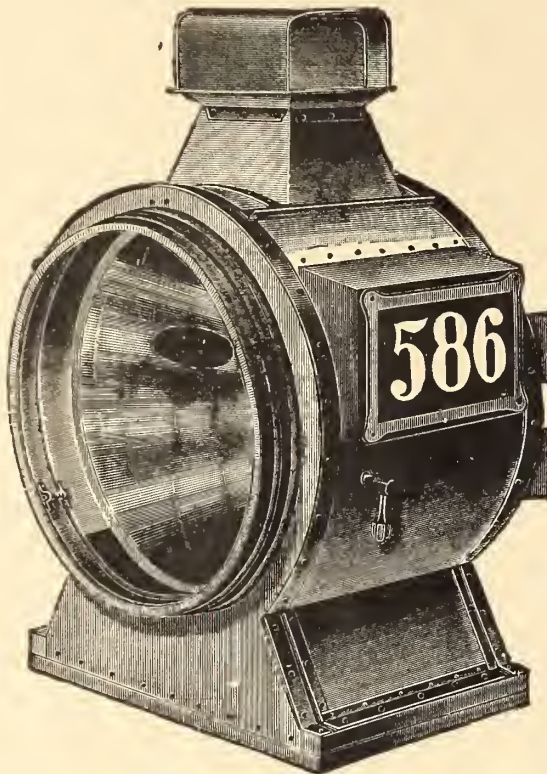
Said business centre of city is generally provided with two streets at most where this traffic must be taken on, that is to say, two lines going east and two lines going west, or north or south, as the case may be. The closest headway that may be run by cars, at 5 or 6 miles an hour speed, is about 20 seconds, hence we must find a means of running 1,300 cars over four tracks in 15 minutes, or 900 seconds; that is to say, we must run 325 cars

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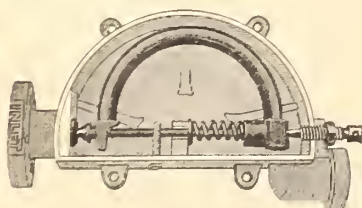
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over each track in 900 seconds, which means that the interval between cars must be less than three seconds. This is a material impossibility and if each car must have a headway of 20 seconds, we arrive at a total time space of (325 x 20 equals 6,500 seconds, equals 108 minutes) 1 hour and 48 minutes to let the procession go by.

It is evident from the above figures that the possibility of relieving congestion with an unlimited number of cars, even if it were approved as a commercial venture, cannot be done without sacrificing time and speed, which would probably aggregate a larger general loss than that above-mentioned, and also give rise to greater recrimination that the disagreeable quicker ride that passengers must endure under present conditions.

There is a maximum in all measurements, and the limit of cars that a city street may accommodate is pretty nearly covered by the service that most companies are at present giving in the heart of busy cities.

The European plan of numbering and limiting passengers, which by the way is generally disregarded in most European countries in Sunday and holiday rushes (for they do business calmly and amuse themselves rapidly)—the European plan would not suit our speedier temperament. It would not avail us much to get a roomy seat in a blockade and most of our countrymen would prefer to get there standing. The no seat, no fare plan would certainly cause an irresistible desire with most people to prefer standing room. The limiting of passengers would be a good move in favor of the companies, as it would reduce the actual loss caused by missing fares, but it yet remains to be seen what public favor such a limitation would meet with in this busy country. The first passenger to be refused admittance in such a case takes it very bitterly, and if he happens to be accompanied and there is only room for one, he is forced to give way to another passenger who should have waited. Again, if a car is filled at this corner a would-be passenger must wait, whilst another patron a block further on, who arrived later, on account of somebody getting off, will be served first. All these little intricacies which appear trivial when not in force, are exceedingly aggravating in practice, and to Canadians or Americans, who are constitutionally in a hurry, become intolerable.

Consequently we are forced to the following conclusions:

1. That congestion at rush hours cannot be avoided.

2. That it may be possible to relieve the crush by the addition of a reasonable number

of cars to a limit where speed must not be sacrificed.

3. That with a view to further increasing the maximum number of cars that may be run without loss of time, most cities should consider the advisability of increasing the speed and giving clearer right of way to allow space for more cars and thereby afford greater and better accommodation to the public.

4. We are inclined to think that when the London business man, whether riding in a hansom or seated on the wet or dry top of an omnibus, will be able to ride directly to his office in the business centre, without having to worry about the blockade that he is treated to daily; when the Parisian count or citizen may be able to drive from the opera to the Louvre on a busy afternoon, a distance of a quarter of a mile, without going ten blocks out of his way; when the devout church goer or the impassioned theatre patron can attend service or play, without having to share in the final disagreeable crush which is an integral part of all such meetings; when the camel will go easily through the eye of the needle without ruffling its silken sides; when a large city and a maddening throng will cease to be synonymous, then may it be that the "No seat, no fare missionary," the "Car Passenger Rights Association Crusader" and a small percentage of street car patrons who live eternally in the winter of discontent, may realize their very improbable dreams and then we may all rejoice that the rush hour crush and congestion will have totally disappeared.

Projects, Construction and Betterments.

British Columbia Electric Ry.—The new car shops at New Westminster, B.C., to replace those burned in Sept., 1904, have been completed. The main building is 180 by 75 ft., adjoining which is the mill, 35 by 50 ft.; a lumber shed, store building, boiler room and paint shop. The main building is heated by hot air. The new shops are a great advance on the old ones. (Jan., pg. 9.)

Central Canada Rd. and Power Co.—The Manitoba Legislature is being asked at its current session for an act incorporating a company with this title to construct a line of electric railway from Winnipeg to a point on the Winnipeg River; and to develop electric power on that river. McPherson and Saunders, Winnipeg, are solicitors for the promoters.

Hamilton, Ancaster and Brantford Ry.—At a meeting of shareholders held in Ancaster, Ont., Jan. 3, permanent directors were

elected, the officers being:—President, C. D. Haines, New York; Vice-President, A. Kennedy, Pittsburg, Pa.; Secretary, E. Kenrick, Ancaster, Ont.; Treasurer, S. Strathy, Hamilton, Ont.; other director: L. Harris, Brantford, Ont. The President has taken up his residence in Hamilton, and will remain there during the construction of the line. The contract for the construction has been let to E. T. Haines, of New York, and I. K. Pierson, of Cleveland, Ohio, has been appointed Chief Engineer. The projected line will be 23 miles in length, and it is expected to have it commenced in the spring and completed within a year. A private right of way has been acquired between Hamilton and Ancaster, and franchises have been secured for the right of way through the townships to Brantford. Negotiations are in progress for running rights over the tracks of the Hamilton Street Ry. within the city limits. The steepest gradient, which will be up the mountain, will not exceed 3% at any point, and it is proposed to construct the line to the highest standard.

The engineers working on the line have surveyed a line from Ancaster to Galt, from which point an extension is projected to Guelph. The line via Galt will be 36½ miles in length, and it is proposed to build it along a private right of way. (Jan., pg. 11.)

Montreal Park and Island Ry.—Application will be made at the current session of the Dominion Parliament for an act authorizing the company to continue the construction of its railway; to authorize such further construction during such time as may be fixed; to authorize the issue of additional bonds, preferred and common stock, and for other purposes.

Montreal Street Ry.—The improvements contemplated to be made during the current year will cost about \$500,000. They will include the construction of three new sub-power stations, at Glen Ave., for the western section of the city; St. Denis St. and Comte Ave., and at Hochelaga, for the lines in those sections of the city, leaving the central station to serve the centre of the city only. Additional car shed room is to be provided at the St. Denis sheds. (Jan., pg. 13.)

Montreal Terminal Ry.—Application will be made at the current session of the Dominion Parliament for an act authorizing the company to construct branch or circuit lines in the counties of Hochelaga, Maisonneuve, Jacques Cartier, Chambly, Vercheres, La Prairie, St. Johns, Iberville, Rouville, and St. Hyacinthe; to develop power and to sell the same for heating, lighting and manufacturing purposes. (June, 1904 pg. 188.)

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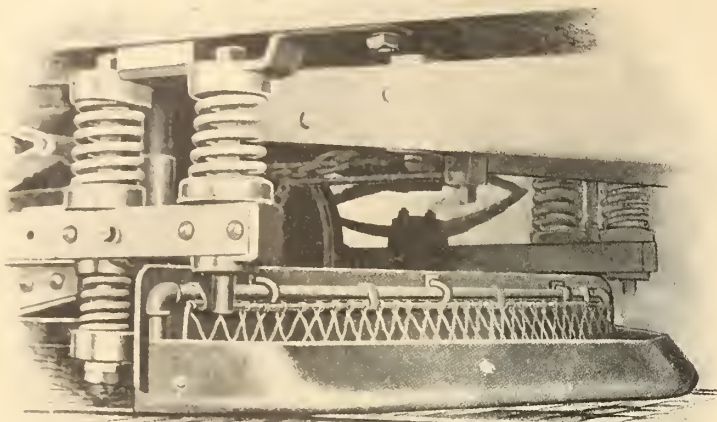
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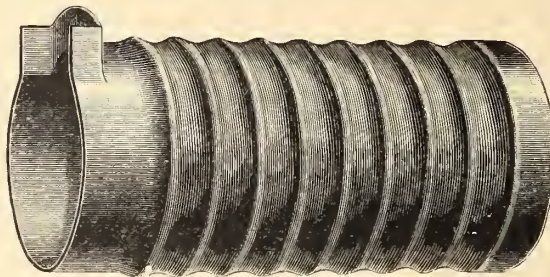
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Niagara, St. Catharines and Toronto Ry.—Application will be made during the current session of the Dominion Parliament for an act authorizing an extension of time for the completion of the projected extension of the company's line to Beamsville, Ont. (June, 1904, pg. 188.)

Niagara, St. Catharines and Toronto Ry.—An extension of time for the commencement and completion of the extensions of the company's authorized lines will be applied for during the current session of the Dominion Parliament.

Riverside Park and Ry.—Application is being made at the current session of the Manitoba Legislature for an act extending the time for the construction of the projected electric railway from Winnipeg to Ste. Agathe, Man.

The Sarnia Street Ry. Co. is considering a project to construct a pavilion at its park on the shore of Lake Huron, 3½ miles from Sarnia, Ont., to which point the line was completed in 1904. The cost of the building is estimated at \$5,000 (June, 1904, pg. 189.)

Sydney and Glace Bay Ry.—New overhead wire has been strung on the loop; a new

boiler and other apparatus has been installed at the power house at Sydney, N.S.

Three Rivers, St. Maurice, Maskinonge and Champlain Electric Ry.—Application will be made at the current session of the Dominion Parliament for the incorporation of a company with this title, to construct a railway from Three Rivers, westerly to Maskinonge, Que., and easterly from Three Rivers to St. Anne de la Perade, to be operated by electricity, with power to develop electrical power and to dispose of the same to municipalities and factories.

Toronto and Hamilton Ry.—Application will be made during the current session of the Dominion Parliament for an act authorizing the company to issue part of its stock as preference stock.

Toronto and York Radial Ry.—A station has been opened on the Metropolitan Division north of the C.P.R. track, Yonge St., Toronto. It is intended to provide stations at Richmond Hill, Aurora, and Newmarket. A survey for the extension of the line from its present terminus at Newmarket to Jackson's Point on Lake Simcoe is being made by Jas. McDougall.

Track has been laid on the extension of the Scarboro Division from the Halfway House for about two miles, and track on the remaining three miles of the extension will be laid in the spring. The cars are being operated from the Woodbine, Toronto, to the end of the track on the extension. Negotiations which had been in progress with Whitby, Ont., for a franchise have been abandoned, the point of difference being the length of the franchise term, the company asking for a perpetual franchise. (Dec., 1904, pg. 431.)

Finance, Meetings, etc.

British Columbia Electric Ry.—Railway earnings for Nov.: Vancouver, \$18,517; Victoria, \$10,777; New Westminster, \$10,749; total, \$40,043, against \$33,893 for Nov., 1903. Gross earnings: railway and lighting, \$82,025, against \$72,343 for Nov., 1903. Working expenses, \$43,539; renewal fund, \$6,695; net income, \$31,791, against \$40,167, \$4,988 and \$27,188 respectively for Nov., 1903. Aggregate net earnings for five months ended Nov. 30, \$131,813, against \$121,013 for same period, 1903.



DELEGATES AT THE INAUGURAL MEETING OF THE STREET RAILWAY ASSOCIATION AT MONTREAL.

Front row from right to left.—W. G. Ross, Managing Director Montreal Street Ry.; E. A. Evans, General Manager Quebec Ry. Light & Power Co. Second row.—M. Neilson, C.E., Director St. John, N.B., Ry.; W. H. Moore, Assistant to the President, Toronto Ry.; C. E. A. Carr, General Manager London Street Ry.; Dr. S. Ritter Ickes, President Grand Valley Ry.; D. McDonald, Manager Montreal Street Ry. Third row.—N. Graburn, Master Mechanic Montreal Street Ry.; Col. H. H. McLean, K.C., Director, St. John, N.B., Ry.; P. Duhee, Secretary Montreal Street Ry.; E. H. White, Cashier Hartford, Ct. Street Ry. Fourth row.—L. Trudeau, Superintendent Montreal Street Ry.; D. Robertson, Montreal Street Ry.; R. J. Fleming, General Manager Toronto Ry.; W. Z. Earl, Manager St. John, N.B., Ry. Back row.—E. A. Smith, Accountant Montreal Street Ry.; A. H. Royce, Vice President Toronto Suburban Ry.; D. E. Blair, Superintendent Rolling Stock, Montreal Street Ry.; W. B. Brockway, Secretary-Treasurer Street Ry. Accountants' Association of America.

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THE COMPANY OFFERS FOR SALE

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ON EASY TERMS OF PAYMENT

Town Lots for sale at Winnipeg, Ft. William, Edmonton, Prince Albert, etc.

The Company has General Stores at Winnipeg, Vancouver, Calgary, Edmonton, and other places where purchasers will find the best of goods at moderate prices.

Transportation by the Company's Steamers, brigades of boats and canoes throughout the Territories not traversed by railways.

Full information at the Company's Offices, Winnipeg, or 1 Lime St., London, E.C.

Gross earnings for year ended June 30, 1904, \$454,508.42; net earnings, \$159,824.11, against \$393,300.63 gross and \$120,808.24 for year ended June 30, 1903. Earnings per car mile, .2378 cents; operating per car mile, .1542 cents; car mileage, 1,911,312 miles; passengers carried, 8,869,486; freight carried, 6,065½ tons.

Halifax Electric Tramway.—Railway receipts for Dec., \$12,163.24, against \$12,160.23 for Dec., 1903, making for twelve months ended Dec. 31, \$157,569.18, against \$150,385.28 for same period, 1903.

The Hamilton Cataract, Power, Light and Traction Co., which controls the electric railways in Hamilton and its vicinity, with the

exception of the Hamilton, Grimsby and Beamsville Ry., declared a dividend at the rate of 5% per annum, for the half year ended Dec. 30, 1904.

Montreal Park and Island Ry.—Length of line, 37.50 miles. Gross earnings: \$160,486.02 for year ended June 30, 1904, deficit \$9,081.14, against \$140,341.52 gross and net earnings of \$7,515.11 for year ended June 30, 1903. Proportion of earnings to working expenses, 105.66%; earnings per car mile, 23.41 cents; operating per car mile, 24.70 cents; car mileage, 675,503; passengers carried, 1,745,598.

Montreal Street Ry.—Length of railway, 63.23 miles. Gross earnings for year ended

June 30, 1904, \$2,412,763.32; net earnings, \$939,561.83, against \$2,162,969.67 gross and \$881,034.07 for year ended June 30, 1903. Proportion of earnings to working expenses, 61.74%; earnings per car mile, 19.75 cents; operating per car mile, 12.19 cents; car mileage, 12,080,791 miles; passengers carried, 59,595,886.

Total earnings for Dec., \$211,283.34; net earnings, \$64,462.53; fixed charges, \$18,474.62; surplus, \$45,987.93, against \$189,266.30 gross, \$61,234.48 net; \$17,273.30 fixed charges and \$45,961.18 surplus for Dec., 1903. Aggregate earnings for three months ended Dec. 31, \$638,114.23; net earnings, \$235,807.69; surplus, \$179,515.17, against \$585,428.11 gross; \$230,078.24 net; \$52,366.83 fixed charges and \$177,711.41 surplus for same period 1903.

Montreal Terminal Ry.—A trust deed in favor of the National Trust Co., to secure the payment of the first mortgage bonds over the first section of the company's undertaking and extensions, has been filed with the Secretary of State at Ottawa.

Application will be made at the current session of the Dominion Parliament for an act authorizing the company to issue preferential shares and to increase its bonding powers.

Nelson Electric Tramway.—Car mileage for year ended June 30, 1904, 34,330 miles; passengers carried, 88,933, against 27,905 and 69,893 respectively for year ended June 30, 1903.

The taxpayers, by a vote, have ratified the agreement leasing the line to the Nelson, B.C., City Council for four years. The city took over the line Jan. 1.

Niagara Falls Park and River Ry.—Length of railway, 13.25 miles. Gross earnings for year ended June 30, 1904, \$124,201.58; net earnings from operation, \$70,583.96; against \$101,348.10 and \$47,507.03 for year ended June 30, 1903. Proportion of earnings to working expenses, 43.17%; earnings per car mile, 38.83 cents; operating per car mile, 16.76; car mileage, 319,838 miles; passengers carried, 1,100,008; freight carried, 77,900 tons.

Niagara, St. Catharines and Toronto Ry.—This electric passenger and freight railway, which extends from Port Dalhousie, Ont., to Niagara Falls, Ont., 19.94 miles, has been purchased by a Toronto syndicate, and the directorate reorganized as follows: President, F. Nicholls; Vice-President, E. R. Wood; other directors: D. D. Mann, H. G. Nicholls, J. E. Jarvis, Z. A. Lash, K. C. The N., St. C. and T. Ry. was originally known as the Niagara Central, a steam railway extending from St. Catharines to Niagara Falls, Ont., 17.79 miles. It got into financial difficulties and was sold in 1900 to its late owners, who organized the N., St. C. and T. Ry. Co., electrified the line and extended it to Port Dalhousie, thereby increasing the mileage to 19.94. The entire line is operated by electricity for passenger traffic, and by steam between St. Catharines and Niagara Falls for freight traffic. The company acquired the steamers Lakeside and Garden City, which have been operated in connection with it, under the title of the N., St. C. and T. Navigation Co. The company subsequently acquired the Port Dalhousie, St. Catharines and Thorold St. Ry., 6.82 miles; and the Wesley Park and Clifton Electric Ry., 4.50 miles, and has power to extend its line to Beamsville, Ont. The total mileage is, therefore, 31.26 miles, excluding sidings, etc.; and this, together with the steamship company, passes to the new owners. The new company, which will assume control at once, is composed of practically the same interests as own the Toronto and Hamilton Ry., which has a charter to construct an electric railway from Toronto to the Niagara frontier.

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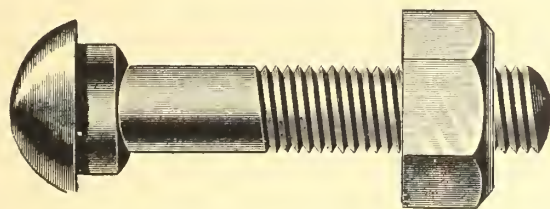
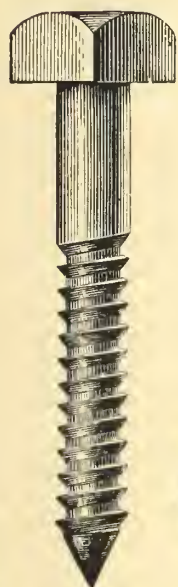
Track Bolts

Track Spikes

Lag Screws

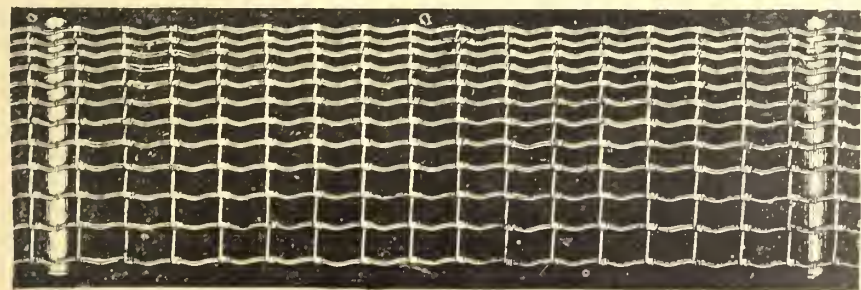
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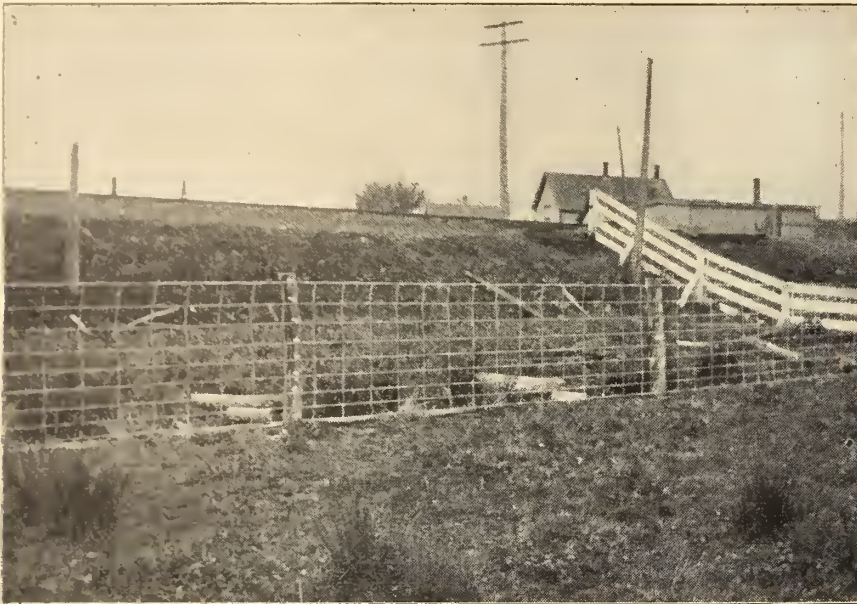
Cyclone Woven Wire Fence Co., - Toronto

Ottawa Electric Ry.—The by-law submitted to the taxpayers at the municipal elections, Jan. 1 to authorize the purchase of the company's line, was defeated, the voting being 819 votes for and 3,557 against. A

project is under discussion for the purpose of amalgamating the whole of the electric companies in Ottawa and Hull, Que. The combined capital of the several companies would be about \$10,000,000. The companies to

be amalgamated would include the O.E. Ry. and the Hull Electric Ry., the latter of which is owned by the C.P.R.

Oshawa Ry.—Length of line, 8.02 miles. Gross earnings for year ended June 30, 1904,



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TERMS OF PAYMENT.

An actual settler may purchase not more than 640 acres, on the ten instalment plan by paying a cash instalment at time of purchase, interest at six per cent. on the unpaid purchase money at the end of the first year, and the balance of the principal with interest in nine equal instalments annually thereafter as shewn in the following table:—

160 Acres at \$3.00 per acre, cash payment \$71.90, first year's interest \$24.49 and nine instalments of \$60.00	
" " 3.50 " " 83.90, " " 28.58 " " 70.00	
" " 4.00 " " 95.85, " " 32.64 " " 80.00	
" " 4.50 " " 107.85, " " 36.73 " " 90.00	
" " 5.00 " " 119.85, " " 40.81 " " 100.00	
" " 5.50 " " 131.80, " " 44.89 " " 110.00	
" " 6.00 " " 143.80, " " 48.98 " " 120.00	

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

DISCOUNT FOR CASH.

If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. on five-sixths of the purchase money.

Interest at six per cent. will be charged on overdue instalments.

F. T. GRIFFIN,

Land Commissioner C.P.R. Co., Winnipeg.

CANADA NORTH-WEST LAND CO.

This Company has 750,000 acres of selected lands in Manitoba and Assiniboia which offer excellent opportunities to settlers and investors who desire to secure good lands in well-settled districts. These lands are on sale at the Company's Office at Winnipeg, and at the various land agencies of the Canadian Pacific Railway Company.

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IMPROVED FARMS in all districts of the province can be purchased at from \$10 to \$40 per acre. These prices are advancing every year.

A FEW POINTERS.

On arrival at Winnipeg the wisest policy for any new settler to adopt is to remain in Winnipeg for a few days and learn for himself all about the lands offered for sale and to homestead.

There are districts that have been settled for many years in which land can be purchased. Some of this may be unbroken prairie which still possesses all the richness and productive powers of our virgin prairies. Other lands, cultivated and having comfortable farm buildings, are ready for immediate possession.

There are Provincial Government lands, Dominion Government homesteads, and railway lands to be secured.

The price of land varies from \$3 to \$40 per acre. Location with respect to railways, towns, timber and water determines the price of land.

For information regarding homesteads, apply at the Dominion Land Office.

For purchase of Provincial lands apply at the Provincial Land Office in the Parliament Buildings.

For C.P.R. or C.N.R. lands apply at the land offices of said railway companies.

For lands owned by private individuals apply to the various real estate agents in the city.

For situations as farm laborers apply to:

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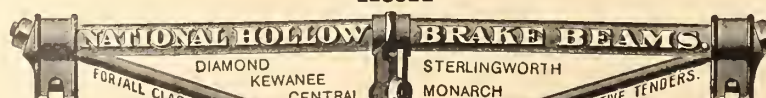
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MONTREAL, - QUEBEC

I. A. YOUNG,

AGENT

\$40,183.02; net earnings, \$3,686.45; against \$51,924 gross and \$16,655 net for year ended June 30, 1903. Proportion of earnings to working expenses, 101%; earnings per train mile, 72 cents; operating per car mile, 65.4 cents; miles run by trains, 55,772 miles; passengers carried, 134,228; freight carried, 66,087.

St. Thomas Street Ry.—Gross receipts for eleven months ended Nov. 30, \$16,283.65; expenditure for same period, \$16,215.99. Passengers carried, 367,181, against 343,379 for same period, 1903.

The South-Western Traction Co., which has constructed an electric railway from London to St. Thomas, Ont., has written the City Council offering to lease or purchase the city electric railway.

Toronto and York Radial Ry.—A mortgage to secure bonds or debentures of this company to the extent of \$3,000,000, made to the National Trust Co., Toronto, has been filed with the Provincial Secretary, Toronto.

Toronto Ry.—Car earnings for Dec., \$213,662.31, against \$199,114.55 for Dec., 1903, making for 12 months ended Dec. 31, \$2,411,551.24, against \$2,154,411.83 for same period, 1903.

The City board of control has passed a resolution favoring the expropriation of the Toronto Street Ry., and directing that application be made to the Ontario Legislature, at its next session, for the necessary powers.

Winnipeg Electric Street Ry.—The amalgamation of the W.E.S. Ry. and the Winnipeg General Power Co. has been completed, under the title of the Winnipeg Electric Ry. Co. The new company has a capitalization of \$4,000,000 in shares of \$100 each, and shareholders of each company will receive one share of stock in the new company for each share they held in either company held by them. The new company has issued \$2,000,000 of refunding first mortgage 30 year sinking fund gold bonds, the Royal Trust Co., Montreal, being the trustee. The company is authorized to issue \$3,000,000 of bonds, and the \$2,000,000 now issued are for the purpose of paying, in part, for the development of an hydraulic plant now under construction and for extensions to the street railway and electric lighting systems. The gross earnings for 1904, the earnings for Nov. and Dec., being estimated, were \$800,000, while the expenses, Nov. and Dec. estimated, were \$425,000, leaving net earnings of \$375,000. In 1903, the gross earnings were \$568,225.84; working expenses, \$320,203.15, and the net earnings \$248,022.69. The officers of the new company for the current year are: President, W. Mackenzie, Toronto; Vice-President, W. Whyte, Winnipeg; Secretary-Treasurer, F. Morton Morse, Winnipeg; other directors: Sir Wm. C. Van Horne, Montreal; D. D. Mann, D. B. Hanna, Toronto; A. M. Nanton, Winnipeg. Manager, W. Phillips.

Electric Railway Notes.

A double truck rotary snow plow has been added to the equipment on the Metropolitan Division of the Toronto and York Radial Ry.

The British Columbia Electric Ry. is building six cars for its Victoria lines, and two interurban cars for Greer's Beach line, Vancouver.

The Toronto and York Radial Ry. is about to establish an express business on its Metropolitan Division, receiving and delivering parcels from its depot on Yonge St., Toronto, north of the C.P.R. tracks.

The Toronto and York Radial Ry. has put on a theatre car on Thursday nights on each of its three divisions, and is advertising the theatre attractions of the city on these lines by means of posters. The special cars are being well patronised.

The Winnipeg Electric Street Ry. has completed a 58 ft. car of a new pattern. It is provided with vestibules for motormen and conductor, and a separate section for smoking and baggage. The seats are covered with netted cane, and can be turned to face in either direction.

Judgment has been given by Justice Anglin, in the action of the Hamilton City Council against the Hamilton Street Ry., in which the former asked for an order to compel the company to replace the present restricted service with a schedule of cars which was formerly in use. The court decided that the city had not the right, under its agreement with the company, to regulate the service.

Grain Elevator Notes.

We are advised, in respect to the press reports, that the C.P.R. was about to construct a 2,000,000 bush. elevator at Fort William, Ont., that this elevator is yet in the rumor stage.

The contract for the foundations of the elevator which the Dominion Government proposes to erect at Port Colborne, Ont., at the entrance to the Welland Canal, has been let to Larkin and Sangster. The cost of the foundations will be about \$100,000.

S. McNairn & Co. (Ltd.) has been incorporated under the Ontario Companies' Act, with a capital of \$150,000 and offices at Toronto, to carry on business as dealers in agricultural produce, and in connection therewith, to acquire or construct grain elevators. J. K. Stroyan, W. F. Morley, T. L. Carruthers, Mrs. J. McNairn, of Toronto, and A. H. Dixon, of North Toronto, Ont., are the provisional directors.

J. S. Myers, of Listowel, Ont., is a shareholder in the Lucknow, Ont., Elevator Co., and has a suit pending in the Ontario courts against the company, and two of its directors, T. F. Carr and J. G. Murdoch, of Lucknow. He is asking the courts to compel the company to transfer on its books some stock which he asserts he has bought. He asks also for an injunction to prevent the company allotting or issuing any stocks under supplementary letters patent issued to it last November. The action against the two directors is for an accounting of the profits of working the elevator under a lease granted to them.

SHIPPING MATTERS.

Muskoka Lakes Navigation and Hotel Co.

The following financial statements for the season of 1904 were presented at the annual meeting in Toronto, Jan. 26:—

TRANSPORTATION DEPARTMENT.

REVENUE.	
Passenger.....	\$ 44,698 25
Freight.....	17,554 74
Table.....	9,403 65
Towing.....	428 00
Mails.....	4,595 00
Express.....	328 25
Refreshment stands.....	450 00
	\$ 77,457 89
EXPENSE.	
Provisions.....	\$ 10,582 34
Fuel.....	9,028 36
Running expense.....	18,156 02
Oil and waste.....	487 16
Laundry.....	219 52
Painting and repairs.....	8,407 86
Marine railway expense.....	57 85
Marine shop expense.....	114 47
Wharf repairs.....	222 86
General expense.....	4,503 96
Office expense.....	2,952 44
Insurance.....	1,052 21
Surplus revenue.....	21,672 84
	\$ 77,457 89

ROYAL MUSKOKA HOTEL.

REVENUE.	
Board receipts.....	\$ 19,448 10
Bar receipts.....	2,857 45
Laundry receipts.....	634 92
Rent.....	583 05
Baggage.....	94 75
Billiards.....	4 07
Baths.....	14 00
	\$ 23,636 34

EXPENSE.	
Provisions and supplies.....	\$ 8,020 73
Wages: dining room, kitchen, steward, housekeeper, porters, and bell-boys.....	5,035 01
Bar supplies.....	1,717 47
Wages.....	244 64
Laundry supplies.....	62 62
Wages.....	697 48
Barber shop—net loss.....	19 77
Engine room expense.....	1,727 90
Miscellaneous help and watchman.....	249 25
Maintenance and golf grounds.....	184 60
Fares.....	635 50
Freight.....	1,375 33
Music.....	592 88
Stationery and printing.....	247 55
General expense.....	1,632 81
Advertising.....	1,058 74
Office.....	2,982 30
Caretaking.....	745 41
Plant renewals.....	786 38
Insurance.....	3,057 69
Taxes.....	323 00
Discount and bad check.....	170 23
	\$ 31,567 29

Net loss on hotel operations..... **\$ 7,930 95**

PROFIT AND LOSS ACCOUNT.

Surplus revenue Transportation.....	\$ 21,672 84
G.T.R. rent account.....	7,988 12
	\$ 29,660 96
Loss hotel operations.....	\$ 7,930 95
General expense.....	243 60
Interest.....	6,453 68
Oriole accident.....	1,063 59
	15,691 82
Net profit, 1904.....	\$ 13,969 14
1903 Disbursements.....	\$ 2,554 39
Loss on sale yacht Royal.....	284 00
Reduction in G.T.R. rent account, 1903.....	527 94
Old accounts written off.....	557 98
	3,924 31
	\$ 10,044 83
At credit, profit and loss, 1903.....	12,635 36
	\$ 22,680 19

BALANCE SHEET.

ASSETS.	
Cash on hand.....	\$ 1,013 94
G.T.R. rent account.....	7,988 12
Accounts receivable.....	3,726 65
	12,728 71
Inventories, transportation.....	\$ 3,560 49
Royal.....	825 64
	4,386 13
10 steamers and outfits.....	\$ 98,928 36
6 scows.....	2,124 26
3 dry docks.....	11,054 00
5 wharves and storehouses.....	2,303 42
Offices and furniture.....	1,311 85
Ice houses.....	297 69
Real estate.....	724 22
	116,743 80
Royal Muskoka construction.....	\$121,777 26
Royal Muskoka furniture and equipment.....	42,170 84
Royal Muskoka site.....	6,073 00
Charter.....	1,034 54
	171,055 64
G.T.R. good-will account.....	14,900 02
	\$319,814 30
LIABILITIES.	
Crown Bank.....	\$ 2,177 81
Accounts payable.....	4,724 22
Canada permanent interest account.....	4,920 00
	\$ 11,822 03
Mortgage payable.....	\$ 82,000 00
Bills payable.....	16,500 00
	98,500 00
Contingent fund.....	13,177 19
	\$123,499 22
Net assets.....	\$196,315 08
Capital stock issued.....	\$173,634 89
At credit, profit and loss.....	22,680 19
	\$196,315 08

The Safety Car Heating and Lighting Co., during 1903, built eleven new plants for the manufacture of Pintsch gas in the U.S. In connection with its exhibit at the St. Louis Exposition it received a grand prize for Pintsch light as the best system of car lighting; a gold medal for its system of car heating, and a gold medal for Pintsch gas buoys and beacons.

The Canadian Westinghouse Co., Hamilton, Ont., has issued descriptive booklets of the Westinghouse no. 12a railway motor, the Westinghouse railway controllers, and of the Baldwin-Westinghouse Electric Locomotives. This latter booklet gives details and specifications of electric locomotives already constructed, showing their adaptability to various uses.

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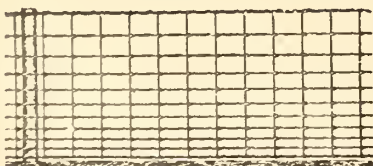
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 Bell Telephone Company
 of Canada.

William Petersen, Limited.

The winding-up of William Petersen (Ltd.), at Newcastle-on-Tyne, Eng., under the Companies' Acts 1862 to 1900, is of considerable interest to Canadian marine men, as the company's operations were largely carried on in this country. The company was registered Nov. 9, 1900, for the purpose of taking over the business of shipowners and shipbrokers then being carried on under the style of Petersen, Tate & Co. It was under this title that the firm obtained prominence in Canada, on account of its contract with the Government in 1897, to provide a fast freight and passenger service between Canada and Great Britain. It was proposed to employ steamers of the turret deck type for this service, several of which at that time were engaged in carrying coal from Sydney, N.S., to Montreal. The efforts to float the project on the British markets were unsuccessful and the deposit which Petersen, Tate & Co. put up was forfeited by the Dominion Government. The company took over the entire business of Petersen, Tate & Co., the consideration being £16,000 in fully paid-up shares. The firm was managing owner of five steamships, belonging to four companies, one of which was the Dominion Turret Line (Ltd.), which were subsequently sold to the Canadian Ocean and Inland Navigation Co. for £130,000, £100,000 being in cash and £31,000 in shares, which terms were subsequently varied, £65,000 being paid in cash, £35,000 in shares, and a second mortgage of £42,160. In 1902, Mr. Petersen sold £80,000 of the C.O. and I.N. Co.'s shares to the Canadian Lake and Ocean Navigation Co., for £65,000 cash, retaining the management of the Turret Bay and Scottish Hero. The three other steamers, Turret Cape, Turret Chief and Turret Crown, were transferred to the Upper Lakes, where they have since traded. The C.L. and O.N. Co. transferred to Mr. Petersen \$150,000 of shares in that company as a bonus. The company was also interested in the Toronto Trading Co. This company, as well as the C.O. and I.N. Co. are said to be considerably in debt to William Petersen (Ltd.). Since 1902 the company has been engaged in an endeavor to establish a line of steamers between Canada and ports in France and Belgium. Two steamers made several round voyages between Antwerp and Montreal during 1903, and in 1904, special efforts were made to establish a line with France. For this purpose a company—Canadian Lines (Ltd.)—was incorporated in Canada. This was the successor of Les Transports Canadiens, and of a Bordeaux firm's attempt to earn a Dominion subsidy for such a service. The latter firm had a contract, but as its steamers called first at the French port of St. Pierre, Miquelon, off the Newfoundland coast, the Government cancelled the contract. William Petersen (Ltd.), which had four steamers under charter—Quebec, Halifax, Toronto and Lake Simcoe—ran them from various continental ports to Quebec and Montreal during 1904, carrying passengers and freight. On one of the voyages of the Lake Simcoe, 26 Syrian immigrants, ordered by the authorities to be deported, escaped, and a fine of \$26,000 was imposed by the Minister of the Interior on the vessel. In connection with this branch of the company's operations, negotiations were entered into with Armstrong, Whitworth & Co. (Ltd.), Elswick-on-Tyne, whereby the latter were to build certain vessels and assist the line financially. The Armstrong Co. subsequently withdrew, and an action was instituted for damages. The Official Receiver has taken steps to protect the interests of the creditors in connection with this matter, and also in some wharfage property in the port of London. The cause of the failure is attributed to expenses in-

curred in attempting to establish the line with France.

The gross liabilities amount to £97,816 16s. 7d., of which it is estimated by the Official Receiver that £63,625 1s. 3d., will rank for dividend. Against this the assets, after meeting preferential claims, amount to £22,277 15s. 11d., leaving a deficiency of £41,347 5s. 4d.

Dominion Inspection Regulations.

The Dominion Government has passed an order-in-council giving effect to a new code of regulations for the inspection of steamboats and for the examination of engineers. The new rules are a consolidation of all existing Canadian rules for the inspection of steamboats, and for the examination of engineers, along with all necessary amendments to bring them up-to-date. The order provides that all existing rules and regulations are to be cancelled, with the exception of the rules passed Nov. 12, 1904, for the inspection of passenger vessels propelled by gas, fluid, naphtha, electricity, or any mechanical or chemical power other than steam. The new rules came into force Jan. 1, but they do not contain any material changes from those previously in force.

An order-in-council, dated Dec. 29, cancels the regulations made April 27, 1904, under which vessels carrying freight only, and having a British registry, were exempted from Canadian inspection on engaging in the coasting trade in Canada, provided they had a certificate of inspection for the current year from the British Board of Trade, Lloyds, Bureau Veritas, or the Norwegian Lloyds. The order directs that they shall be subject to the Canadian Steamboat Inspection Act, in the same way as Canadian vessels, and further, that all yachts, tugs and other vessels landing in Canadian ports, registered elsewhere than in Canada, shall be subject to the like inspection. So far as the Upper Lakes are concerned, there are a number of freight steamers and the oil carrying steamer Imperial, of Sarnia, to be inspected. Among the freight steamers are: Theano, Polika, Leafield, and Monkshaven, of the Algoma Central Steamship Line; Turret Cape, Turret Crown, Turret Court, Turret Chief, J. H. Plummer, H. M. Pellatt, and A. E. Ames, owned by the Canadian Lakes and Ocean Navigation Co.; Strathcona, Donnacona, Neepawah and Wacandah, owned in Hamilton, Ont.; Neebing, owned by the Neebing Navigation Co.; Wexford, owned by the Western Lakes Navigation Co., Collingwood, Ont.; Newmount, owned by the Farrar Transportation Co., of Collingwood, Ont. The Fairmount, Westmount and Rosemount of the Montreal Transportation Co.'s fleet will also have to be inspected.

Northern Navigation Co of Ontario.

The article on the affairs of this company, published in our last issue, prepared the public for the action which has since been taken by the directors. On Jan. 17, Barwick, Aylesworth, Wright and Moss, of Toronto, on behalf of the company, issued a writ in the High Court of Justice against T. Long, Toronto, and J. J. Hopkins, Collingwood, executors of the late J. J. Long. The writ states that "the plaintiffs' claim is to enforce payment of \$83,773.84, together with interest from June 30, 1904, being the amount agreed to be paid by the late J. J. Long to the plaintiffs in settlement of the Northern Navigation Co.'s claim against him in respect of false and fraudulent representations made by the said J. J. Long, or in the alternative, to recover \$150,000 damages for the fraud and

deceit and false and fraudulent statements of the said J. J. Long to the Northern Navigation Co., upon which the said company acted to its loss and damage to the said amount."

This action fully justifies the course we have followed in regard to the affairs of this company. In the fall of 1903 the publisher of this paper, having discovered how grossly the affairs of the company had been manipulated in the interest of certain directors, placed his information at the disposal of other directors, resulting in an investigation being made. In January, 1904, we published a series of charges against the management, these charges were sustained at the annual meeting, changes were effected in the board, and when the new officials obtained access to the books they found that matters were even worse than we had charged. Our action was criticized at the time by a clique favorable to the old management, but subsequent events have proved that we were thoroughly justified, and we have the satisfaction of knowing that we performed a public duty, for which we have received the thanks of a large number of shareholders.

Niagara Navigation Company.

In our last issue we gave the annual report, etc., for the year ended Nov. 30, 1904. There were not many important changes in the list of shareholders during the year. At the end of 1903 E. R. C. Clarkson, Toronto, held 200 shares, and H. C. Hammond, Toronto, 100 shares. Neither of them are now on the list of shareholders. At the closing of the books, Dec. 31, 1904, the following held 25 shares or over, the addresses of the shareholders being Toronto unless otherwise stated:—E. B. Osler, 200; W. Hendrie, Hamilton, 200; F. B. Cumberland, 181; Colonial Investment and Loan Co., 170; I. K. Gartshore, Hamilton, executrix, 150; A. Clubb, 110; A. E. Dymont, Thessalon, 100; T. P. Phelan, 100; E. G. Fitzgerald, 60, and in trust, 50; Mrs. Seraphina Cumberland, 75; J. S. Hendrie, Hamilton, 72; W. Hendrie, Jr., Hamilton, 67; H. L. Boulton, 60; S. A. Rowbotham, 55; S. G. Curry, 50; A. J. Small, 50; D. R. Wilkie, 50; Mrs. Peterson, 50; David Walker, 50; H. T. Bailey, 50; E. W. Langley, 45; Rev. G. M. Milligan, 45; A. W. Austin, 30; A. Darling, L. Cooke, and F. M. Fraser, trustees, 30; Mrs. L. M. Hendrie, Hamilton, 30; W. H. Knowlton, 30; Geo. Reedy, 30; Wilson Lumber Co., 30; A. Jarvis & Co., 30; A. E. Coulthard, Oshawa, 25; J. S. Kornmann, 25; H. Lamport, 25; Mrs. Margaret McArthur, 25; Miss E. A. McMicking, 25; Miss Helen Wardrop, 25; E. W. Atkins, Eglinton, 25; Cawthra Mulock, 25; F. A. Fee, Buffalo, 25; Prof. Shuttleworth, 25. At the same date the following financial institutions held in trust the respective numbers of shares mentioned:—Home Savings and Loan Co., 784; Imperial Bank, 577; Bank of British North America, 460; Bank of Hamilton, 361; Sovereign Bank, 250; Merchants Bank, 185; Canada Permanent Loan and Savings Bank, 143; Dominion Bank, 30; Crown Bank, 25.

Notices to Mariners.

The Dominion Department of Marine has issued the following notices to mariners:

No. 120. Dec. 5.—New Brunswick 318. Bay of Fundy, Gannet rock light, repairs made to revolving apparatus. Nova Scotia—319. Bay of Fundy, Lurcher shoal, light-ship replaced on her station.

No. 121. Dec. 6.—Quebec 320. River St. Lawrence, ship channel between Quebec and Montreal, Longue Pointe traverse, pole lights replaced by permanent range light houses.

No. 122. Dec. 7.—Quebec—321. River St. Lawrence, between Murray Bay and Kamouraska, Morin shoal discovered, located and buoyed.

No. 123. Dec. 12.—New Brunswick—322. South coast I. Etang harbour entrance, Gray Mare ledge, spindle replaced. Labrador—

323. Anaukat Island, Mortimer shoal, reported existence of.

No. 124. Dec. 13.—British Columbia—326. Queen Charlotte Islands, name of southernmost island changed to Kunghit Island.

No. 125. Dec. 16.—Quebec—330. Gulf of St. Lawrence, Anticosti, general information.



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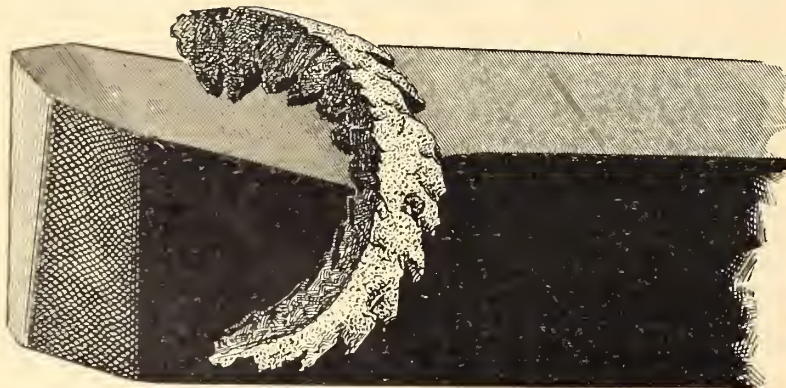


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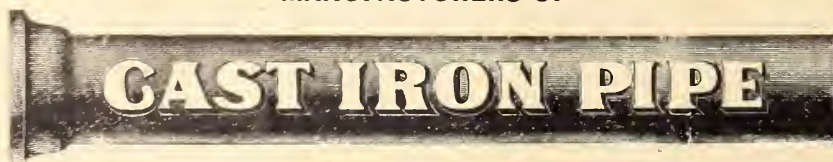
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No. 127. Dec. 21.—British Columbia.—Kootenay Lake, Pilot Bay, lighthouse established.

No. 128. Dec. 27.—British Columbia.—325. Vancouver Island, east coast, Stuart channel, approach to Dodd's Island, shoals located.

Maritime Provinces and Newfoundland.

Capt. Muggah, of the str. Wasis, died suddenly on board the steamer, North Sydney, N.S., Jan. 2.

Capt. Jas. A. Hatfield, formerly a ship-builder at Parrsboro, N.S., died at Port Greenville, N.S., Jan. 6, aged 86.

The Halifax, N.S., pilots are considering a plan to provide a steamer for cruising outside the harbor, in place of the present sailing boats.

The str. Mira, wrecked off Yarmouth, N.S., in 1902, while in the Dominion Coal Co.'s service, has been given a U.S. registration, and is now named Joseph W. Foordney.

The Imperial dockyard at Halifax, N.S., has been closed, a lot of stores have been removed to England, and the remainder sold. The dockyard property, it is reported, will be sold to the Intercolonial Ry.

The Royal Mail Steam Packet Co., of Southampton, Eng., and the Elder-Dempster Co., of Liverpool, Eng., propose to tender for the Halifax-West Indies steamship service now performed by the Pickford & Black steamers. The Elder-Dempster Co. now run steamers from the West Indies to Bristol, Eng.

A company has been formed in Sydney, N.S., of which J. T. Burehell is President, and W. Hayes is Secretary, for the purpose of establishing a steel shipbuilding yard there. It proposes to have a plant capable of turning out one 15,000 ton steamer a year; to establish a dry dock for 8,000 ton vessels, and to keep a wrecking plant at the port. The Sydney City Council offered a bonus of \$250,000 towards the establishment of such a plant, and the Provincial Government offered a bonus of \$100,000 towards the establishment of a shipbuilding plant in the province.

The contract between the Dominion Government and the Charlottetown Steam Navigation Co., for a mail service between the island and the mainland at Summerside, P.E.I., and Pictou, N.S., expires during the current year. The contract heretofore has been a five year one, and an effort is being made to have it renewed for ten years. The directors of the company desire to improve the service, and in order to enable them to do so, desire to have the contract for the longer period. In the event of the company's proposal being agreed to, it is intended to add a new steamer of about the same size as the Northumberland, and capable of making up to 20 miles an hour. The company's engineer recently visited Toronto and Hamilton, to investigate the Turbinia, with a view of reporting on the advisability of placing a similar steamer on the route.

Province of Quebec Shipping.

The Quebec Steamship Co.'s new str. Bermudian made 17 knots an hour on her trial trip at Sunderland, Eng. She has now been placed on her run between New York and Bermuda.

The Lake Champlain and St. Lawrence Ship Canal Co. will apply during the current session of the Dominion Parliament for an act granting an extension of time for the construction of the projected canal.

The Montreal Harbor Commissioners recently sent a deputation of its members to

visit various United States ports, to inspect the permanent sheds in use at them. The deputation returned and reported favorably impressed with the two-story sheds planned for Montreal.

The number of seagoing vessels arriving at Montreal during the season of navigation of 1904 was 365, having a total tonnage of 1,218,369 tons, against 459 vessels of 1,399,621 tons in 1903. The arrivals from lower Canadian ports numbered 366 vessels of 573,843 tons, against 309 vessels of 456,714 tons in 1903. The number of vessels and their tonnage arriving from lake ports has not been published.

The icebreaking steamer Montcalm has been engaged in preventing the formation of the ice bridge at Cape Rouge. On Jan. 5 she cleared the river of packed ice for two miles, extending from St. Romuald to near Levis, and varying from three to 15 ft. thick. The breaking up of the bridge prevents people from crossing the river on the ice, and prevents the regular operation of the ferry between Levis and Quebec, by reason of the broken up ice floating backwards and forwards with the tide. Quebec people are grumbling at this state of affairs. The steamer subsequently broke three blades of her propeller in the ice.

Ontario and the Great Lakes.

Capt. D. O'Hagan, of St. Catharines, Ont., a well-known lake mariner, died there suddenly Jan. 8.

Capt. D. Pace, who died in Hamilton, Ont., Jan. 2, aged 80, was a retired lake captain. He was well known in the old schooner days.

The steam barge Navajo, owned by Richardson Bros., Kingston, Ont., was damaged by fire to the extent of \$10,000 at Prescott, Ont., Dec. 29.

The contract for the removal of the central piers of the bridges over the Welland canal at Allanburg and Marlatt, Ont., has been awarded to Magann & Plin, Toronto.

The survey on the route of the projected ship canal along the Ottawa River to Mattawa, thence to Lake Nipissing and to Georgian Bay, along the French River, are being proceeded with. The nine parties, which are making the survey, comprise 145 men, and it is estimated that it will take two years to complete the work.

The French River and Nipissing Navigation Co. has been incorporated under the Ontario Companies' Act, with a capital of \$25,000 and offices at Sturgeon Falls, Ont., to carry on a general navigation business. The provisional directors are: J. A. Clark, J. W. Hendrie, Sturgeon Falls, Ont.; J. M. Harris, W. Hendrie, Sr., and W. Hendrie, Jr., Hamilton, Ont.

The Turbine Steamship Co.'s annual meeting was held at Hamilton, Jan. 9. The reports presented of the first season's operations were considered satisfactory. The officers and directors for the current year are:—President, Jno. Moodie; Vice-President, C. A. Birge; Secretary-Treasurer, G. Hope; other directors: C. S. Wilcox, W. C. Hawkins, of Hamilton; W. Hyslop and Col. J. I. Davidson, Toronto.

The Hamilton Steamboat Co., at its recent annual meeting, declared a dividend of 10%, and voted \$200 to the Manager, W. B. Bishop, as a special present. The company's steamers carried 43,605 more passengers in 1904 than in any previous season. The following are the officers and directors for the current year:—President, M. Legat; Vice-President, G. T. Tuckett; other directors: F. W. Fearman, S. Jones, J. W. Lamoreaux, H. B. Witton, and T. Ramsay.

The report for 1904 of the Ottawa River Navigation Co., presented at the annual meeting, Jan. 11, showed a very good year's business. The operation of the steamers was interfered with during May and June by the high water in the river, during which period five wharves were under water. The officers and directors for the current year are:—President, H. W. Shepherd; Vice-President, H. Wallis; Managing Director, R. W. Shepherd; other directors: R. Bolton, A. F. Riddell.

The Canadian canal at Sault Ste. Marie was open for 240 days, from April 30 to Dec. 25, or 17 days longer than the U.S. canal was open. There passed through the canals 12,188 steamers, 2,994 sailing vessels, and 938 unregistered vessels, a total of 16,120, against 18,596 vessels for 1903. The total tons of freight carried was 31,546,106, against 34,674,437 in 1903, and 37,695 passengers were on board, against 55,175 in 1903. The tonnage passing through the Canadian canal for Dec. was 970,865 tons, against 497,198 in 1903; making for the season 5,028,190 tons, against 5,502,185 tons for 1903.

Application will be made at the current session of the Dominion Parliament for an act incorporating a company for the purpose of constructing and operating navigable waterways, and portage railways for ships, from a point on Georgian Bay between Waubashene and Port Severn or on Nottawasaga Bay along the valley of the Nottawasaga River to a point on Lake Ontario. One terminus will be on Lake Ontario at Toronto and the other is to be in the county of York or the county of Ontario. There will be basins and reservoirs for the storage of water and for slack water navigation. G. Bell, Toronto, is solicitor for the applicants. The project is in a very embryonic stage, but the plans as suggested embody the project of an eight-rail track from point to point over the portages. There may be two distinct lines—one with its northern terminal on Georgian Bay between Waubashene and Port Severn, running direct to the terminal in York on Lake Ontario, the other line running from a point on Nottawasaga Bay to Lake Simcoe, thence after a sail across ships would be put on the rails again for the Lake Ontario terminal. The scheme suggested for loading the ships is to run them into a cradle, in which are huge pontoons or bags partially filled with liquid. When the cradle is raised the pontoon so adheres to the shape and sides of the ship as to steady it firmly on the ear. H. C. Spaulding, of New York, and a number of associates are behind the enterprise.

The Temiscamingue and Mechiskan Dam Co. (Ltd.) is the title under which Sir A. P. Caron, C. B. Powell, R. J. Devlin, R. V. Sinclair, J. A. Ellis, of Ottawa, Ont.; E. B. Eddy, W. H. Rowley, of Hull, Que., have been incorporated under the Dominion Companies' Act, with a capital of \$100,000 and offices at Ottawa. The company is authorized to construct a dam across the southern outlet of the lake, near the terminus of the C.P.R. branch line from Mattawa, Ont., at which point lake navigation commences; to construct docks, wharves, etc., anywhere on the lake or navigable rivers running into it; to operate steamers, ferries and other vessels and barges, and to carry on a shipbuilding business, in addition to a variety of other industries. In addition to the extensive lumbering trade, there is a large freight and passenger business carried on between Temiscamingue, Ville Marie, Que., Haileybury and New Liskeard, Ont., by the Lumsden line of steamers and steamers owned privately; as well as by smaller steamers between New Liskeard and Tomstown, Ont., 20 miles up the Blanche River. The tourist business on the lake has been increasing, the Kippawa Lakes being

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Burlington Elevator Co., Peoria, Ill.	500,000 "
Canada Atlantic Railway Elevator, Coteau Landing, Que.	500,000 "
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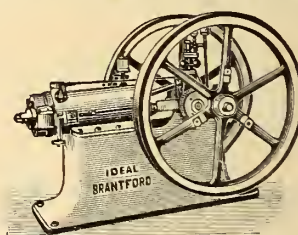
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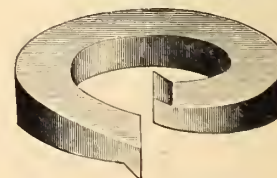
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reached via Temiscamingue, Que., and Lake Temagami from Haileybury, Ont. How the travel to the latter point will be affected by the opening of the Ontario Government railway from North Bay to New Liskeard, Ont., will be known during the summer. There is a station on the line close to the crossing of the Montreal River as it leaves the lake. The route hitherto followed has been from Haileybury and by canoe up the Montreal River.

Manitoba and Northwest Territories.

F. MacLennan, Collector of Customs at Whitehorse, Yukon, has been appointed measuring surveyor of shipping at that port.

A contract has been placed at Edmonton, Alta., for the building of a new stern-steamer for the Saskatchewan River trade, for John Walter. She will be 80 ft. long by 16 ft. beam, and is intended for the coal and lumber trade.

A. P. Low recently delivered a lecture at Ottawa, on the navigability of Hudson's Bay and Straits, basing his observations on the results of his recent explorations. He referred to Fort Churchill as being the most open and accessible fort on Hudson's Bay. This point is 843 miles from Fort William, Ont., and 800 miles from Regina, Assa. From Regina to Liverpool, by Fort William and Quebec, is 4,740 miles, while from Regina to Liverpool by Fort Churchill is 3,730 miles. The navigation of the bay and straits is, he said, free and open from July 1 to Nov. 1, a period of four months. For a year or so the insurance on steamers would be heavy, until the safety of the route was established. Mr. Low said he had no doubt whatever but that the route was as feasible and as safe as the St. Lawrence route.

B.C. and Pacific Coast Shipping.

The str. City of Topeka, has been towed to Victoria, B.C., where she will be repaired and refitted for the Alaskan trade, at a cost of \$100,000.

The new wharf erected by the C.P.R. at Victoria, B.C., has been completed, and the steamers commenced landing freight and passengers there Jan. 1.

The Anglican Church Mission has arranged to purchase or to have built a steamer to visit the mission stations, logging and other camps along the northern coast of British Columbia.

The steamers of the Canadian-Australian Line are to make six calls a year at Fanning Island, the mid-ocean station of the British Trans-Pacific cable, stopping on the northward run to Vancouver, B.C., only.

The Geographic Board has changed the name of the southernmost island of the Queen Charlotte group from Prevost to Kunghit Island, to prevent confusion with Prevost Islands, off the east coast of Vancouver Island.

T. G. Mitchell, who has been appointed Lloyds' engineer surveyor for British Columbia, was recently presented with a case of cutlery, by the engineers of the C.P.R. steamers, on resigning his position as chief engineer of the Princess Victoria.

The Dominion cruiser Canada, with a crew of 70 men, has sailed for the West Indies, for the purpose of training the crew, for gunnery instruction, etc.

The Virginian, the second of the turbine steamers for the Allan Line, has been launched at Glasgow, Scotland. She is expected to leave Liverpool on her first trip to Canada, April 6.

There are over 800 steamers of over 5,000 tons in the world, of which the United States

has 62. The largest vessel borne on the Canadian register is the M.S. Dollar, of Victoria, B.C., which is 4,216 tons gross.

The C.P.R. has renewed the insurance of its Atlantic, Pacific, lake and river steamers with British underwriters, as in former years. The values of some of the steamers have been reduced, but otherwise there is no material alteration in the terms.

The C.P.R. has placed an order with the Fairfield Shipbuilding Co., Glasgow, Scotland, for the construction of two steamers for its Atlantic fleet. The plans show that the new steamers will have a length of 550 ft. between perpendiculars, a breadth of 65 ft., and will have a total capacity of 14,500 tons. The passenger accommodation will provide for 300 first-class, 350 second-class, and from 750 to 1,000 steerage passengers. The vessels will be fitted with quadruple expansion engines, which will develop a speed of 20 knots an hour. The steamers will be the largest and fastest trading between Great Britain and Canada. The contract calls for the placing of the steamers on the run in April or May, 1906.

At a meeting of the steamboat passenger interests of the Atlantic seaboard and Great Lakes, held in Buffalo, N.Y., Jan. 5, the changes in the rules and regulations governing the inspection of steam vessels proposed to be adopted by the U.S. Government were discussed. An association of Passenger Steamboat Lines was formed to look into this matter, and to discuss other matters affecting the interests of owners of passenger steamers. C. F. Gildersleeve, Kingston, Ont., President Dominion Marine Association, was appointed a member of the committee to meet the U.S. authorities and discuss the inspection rules. The Canadian lines represented were: C.P.R. steamship lines, Niagara Navigation Co., Northern Navigation Co., Lake Ontario and Bay of Quinte Steamboat Co., Richelieu and Ontario Navigation Co. C. F. Gildersleeve, President, and F. King, Secretary, represented the Dominion Marine Association.

The Dominion Government has appointed J. P. Mabee, K.C., Toronto; L. Costi, C.E., Montreal, and W. D. King, Dominion Astronomer, Ottawa, to be members of the International Inland Waterway Commission. The U.S. has also appointed three commissioners. The objects of the commission are:—"To investigate and report upon the conditions and uses of the waters adjacent to the boundary lines between Canada and the United States, including all lakes and rivers whose natural outlet is by the River St. Lawrence to the Atlantic Ocean; also upon the maintenance and regulation of suitable levels and also upon the effect upon the shores and upon the interests of navigation of these waters of diversion from or change in their natural flow, and, further, to report upon necessary measures to regulate such diversion and to make such recommendations for improvements and regulations as shall best subserve the interests of navigation in such waters; to report upon the advisability of erecting a dam at the outlet of Lake Erie, with a view to determining whether such dam will benefit navigation, and if such structure is deemed advisable to make recommendations to their respective Governments looking to an agreement or treaty which shall provide for the construction of the same."

Among the Express Companies.

The Dominion Ex. Co.'s office at Brockville, Ont., has been rearranged and modernized, in order to meet the increasing business.

The British American Ex. Co., Sault Ste. Marie, Ont., has passed a by-law increasing the number of its directors from 5 to 12.

The Halifax Board of Trade has passed a resolution asking that the express companies should be placed under the control of the Railway Commissioners.

The Canadian Ex. Co. reports that it handled the carcasses of 2,522 deer shot in Ontario during the season of 1904. The total weight of the deer was 285,847 lbs.

The Maritime Ex. Co. has been incorporated under the Dominion Companies' Act, with a capital of \$15,000 and offices at Ottawa for the purpose of carrying on a general express business in Canada, and elsewhere, with all the powers usually given to express companies. The provisional directors are: F. H. Chrysler, C. J. R. Bethune, N. G. Larmonth, G. G. Chrysler, Ottawa; and P. Giffins, General Manager Dominion Ry., Kentville, N.S.

W. A. Clark, who has been appointed General Agent of the Dominion Ex. Co. at Montreal, is a native of Woodstock, Ont., and was engaged with the Canadian Ex. Co. at St. Marys, Ont., Toronto, and Montreal, until May, 1885, when he was appointed General Agent Dominion Ex. Co., at Ottawa, which position he held up to Dec. 31, 1904. Prior to leaving Ottawa for his new position he was given a testimonial by the business men of Ottawa.

The Dominion Ex. Co. has divided its territory into five divisions, the new arrangement taking effect Jan. 1. The new divisions are: Atlantic Division, including all lines east and south of the St. Lawrence River, with V. G. R. Vickers in charge as Superintendent; headquarters, Montreal. Eastern Division, includes all lines north and west of the St. Lawrence River and east of, but not including Toronto, up to but not including Port Arthur, Ont., with J. A. Boswell in charge as Superintendent; headquarters at Montreal. Western Division, includes Port Arthur, Ont., and all lines west thereof, up to but not including Swift Current, Assa., with G. Ford in charge as Superintendent; headquarters at Winnipeg. Pacific Division, includes all lines and offices west of Swift Current, Assa., with S. T. Stewart in charge as Superintendent; headquarters at Vancouver, B.C. Southern Division, includes Toronto, and all lines north and west thereof, not north or west of North Bay, and formerly part of the Ontario Division, with W. Walsli, Assistant to the General Manager, in charge; with headquarters at Toronto, Ont.

Telegraph and Cable Matters.

The C.P.R. telegraph department has installed its call-boxes in Ottawa, Ont.

J. Oliver, a C.P.R. telegraph operator at Winnipeg since 1888, died at Selkirk asylum, after a brief illness, Dec. 29, 1904.

W. Rutherford, chief operator C.P.R. telegraphs, Winnipeg, Man., was recently presented with a gold watch and chain by the operating staff.

Telegraph offices have been opened at Temagami, Haileybury and New Liskeard, Ont., on the Temiskaming and Northern Ontario Ry. The rate is 25c. for 10 words from North Bay, Ont.

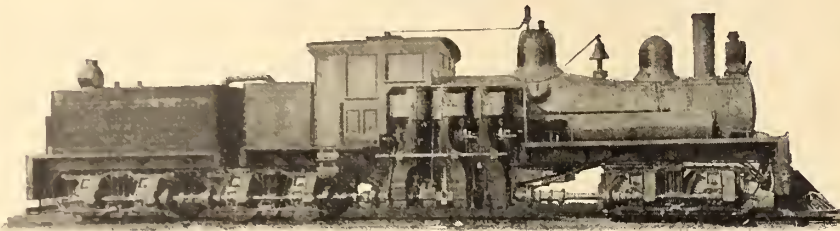
The British Empire League, of Australia, has passed a resolution expressing the opinion that all the self-governing British communities round the world should be united by a continuous chain of state-owned telegraphs.

The arbitration proceedings in connection with the G.T.R. telegraphers' demands for increased wages, shorter hours, etc., were concluded at Toronto, Jan. 7, and the decision is expected to be announced at an early date.

The C.P.R. and the telegraph operators on its eastern lines have come to an agreement

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FREE our practical Pamphlets:

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- "Paints in Architecture,"
- "Specifications for Architects,"
- "French Government Decrees,"
- "Paint: How, Why and When."

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CHAS. S. LEE,

General Passenger Agent, New York.

W. B. WHEELER,

General Agent, Pass. Department, Buffalo, N.Y.

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Reserve fund - - - 3,000,000

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Freight Cargoes, and
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regarding wages and conditions of work. Negotiations are in progress between the company and the operators on its western lines, with a view to an agreement being reached.

A new telegraphic invention will, it is claimed, enable 40,000 words an hour to be transmitted and transcribed in a legible handwriting. The machine which accomplishes this, is the invention of an Austro-Hungarian, and was recently exhibited in London, England.

Experiments recently made in Italy in connection with the actions of radio-telegraphy, show that the electro-magnetic wave message transmitted by this system cannot be diverted from the point for which it is intended. This is the most recent development of wireless telegraphy.

The British Post Office has authorized the acceptance at any post office in Great Britain of messages for transmission by wireless telegraphy to vessels at sea, and will transmit messages received by similar means from vessels at sea. The charge will be 13c. a word for messages going to vessels.

The legal arguments in the arbitration proceedings respecting the Newfoundland telegraphs, in which the Reid Newfoundland Co. is claiming \$3,500,000 from the Newfoundland Government, were concluded in Toronto, Jan. 14. The proceedings were adjourned to Feb. 3, at St. John's, Nfld., when the decision will be given.

The Marconi system of wireless telegraphy is being utilized on the Dominion steamers Stanley and Minto, operating between Picton, N.S., and Georgetown, P.E.I. The success of the wireless telegraph stations already established in the Gulf of St. Lawrence, has induced the Government to direct the erection of two additional stations along the Gulf route. One of the new stations will probably be erected at Whittle Rocks, Labrador, and the other at Point Rich, Nfld.

The Newfoundland Legislature, at its recent session, passed an act relating to the postal and telegraph services of the colony, in which the telegraph service is declared to be vested in the control of the Postmaster-General. That officer is declared to have the exclusive privilege of erecting and maintaining telegraph lines and of transmitting messages by telegraph within the colony, except along the railway lines, where the Reid Newfoundland Co. may construct the telegraph lines necessary for the working of the railway. The Postmaster-General is authorized to make an arrangement with the Anglo-American Telegraph Co., for taking over that company's land lines; and may also make regulations for the landing of cables, and generally for the management of the lines.

The Dominion Government telegraph service at the end of 1904 operated 6,584 miles of telegraph lines and cables in various parts of Canada. In connection with these lines there are 299 offices, an increase of 343 miles of lines and 40 offices compared with 1903. The government system may be described in a general way as consisting of three blocks. One connects Quebec with a station at the Atlantic end, 80 miles beyond the Canadian boundary in Newfoundland, at Chateau Bay, opposite Belle Isle, in the Straits of Belle Isle; with a cable proceeding southwardly by way of the Island of Anticosti and the Magdalen Islands to Cape Breton, and branches in Nova Scotia and New Brunswick. Another is within the boundaries of Assiniboia and Saskatchewan. The third extends from the southern section of British Columbia north beyond Dawson, Yukon, with a branch from the main line to Port Simpson, on the Pacific coast below the Alaskan strip of the United States, and a spur to Aberdeen, on the coast below Port Simpson.

Montreal Telegraph Company.

At the 58th annual meeting in Montreal, Jan. 12, the balance sheet for the year ended Dec. 31, 1904, was presented as follows:—

ASSETS.	
Telegraph lines in Canada and U.S.	\$1,625,890.00
Telegraph cables in Canada and U.S.	33,487.39
Telegraph offices and equipment of offices in Canada and U.S.	212,500.00
Real estate in Montreal, Ottawa, Quebec and Toronto	279,946.46
	\$2,151,823.85
Cash accounts receivable, bonds and other securities, and real estate (not included in lease to G.N.W.T.Co.	135,975.30
	\$2,287,799.15
LIABILITIES.	
Shareholders' capital	\$2,000,000.00
Excess in value of property operated by G. N. W. T. Co. over shareholders' capital	151,823.85
	\$2,151,823.85
Dividend payable Jan. 15, 1905	\$40,000.00
Unclaimed dividends	566.90
Contingent fund	95,409.40
	\$135,975.30
	\$2,287,799.15

The directors' report said: The dividend guaranteed by the Western Union Telegraph Co. under the terms of the agreement of Aug. 17, 1881, was distributed in the usual manner and on the fixed dates, with a payment of 10c. a share to shareholders of record Sept. 30 last. The company's property, valued at \$2,151,823.85, is operated and maintained by the G.N.W. Telegraph Co., Canada. Its operation and maintenance is also guaranteed by the Western Union Telegraph Co., of New York, under an agreement with this company, for 97 years from July 1, 1881.

The following were elected officers and directors:—President, H. A. Allan; other directors: W. R. Miller, M. Burke, F. O. Lewis, L. M. S. Speckman, G. O. Lynn, R. Archer, W. E. Cheese, W. Wainwright, C. Campbell, A. G. Watson and H. Joseph.

General Telephone Matters.

G. F. Freeman has been appointed manager of the Valley Telephone Co., Middleton, N.S.

The Alberta Telephone Co. is arranging to install a complete system of telephone lines throughout the Crow's Nest Pass district.

The Bell Telephone Co.'s construction staff is preparing to string about 500 miles of long distance lines, to open up various districts in Manitoba and the Northwest Territories.

The St. John, N.B., City Council has passed a resolution against telephone companies being permitted to put up poles or tear up streets without the consent of the municipality interested.

The Bell Telephone Co. has completed a branch office at the corner of Caron and Charest Streets, Quebec, where the business of the St. Sauveur, St. Malo and Limoilon districts will be transacted.

Owing to a break in the telephone cable connecting the Island of Orleans in the St. Lawrence River with the mainland, a temporary line has been constructed by the Bell Telephone Co. along the St. Charles ice bridge.

The estimated damage of recent storms in New Brunswick to the lines of the New Brunswick Telephone Co., is from \$10,000 to \$15,000. The company has completed new brick office buildings at St. Stephens and Moncton.

The B.C. Telephone Co. is negotiating with the Kamloops, B.C., City Council with respect to the annual rental which the company should pay. The city asks \$200 a year, and the company offers \$25 a year and three free instruments

The Bell Telephone Co. is negotiating for a franchise in Berlin, Ont., and also with the farmers throughout Waterloo county, who have been discussing the desirability of establishing an independent telephone company in the county.

The Manitoba Legislature is being asked at its current session to incorporate two companies, each with the power to establish local and long distance lines in the province. Potts and Hubbard, Winnipeg, are solicitors for the applicants in the one case, and Hough, Campbell and Ferguson, Winnipeg, in the other.

During 1904 there was an increase of over 1,000 in the number of telephone subscribers in Winnipeg, the Bell Telephone Co. having now over 3,500 instruments in use there. The switchboard at the central station is being enlarged to accommodate 1,400 lines, which is expected to provide for the demands of the current year.

The Richibucto-Rexton Telephone Co. (Ltd.) has been incorporated under the New Brunswick Companies' Act, with a capital of \$20,000 and offices at Richibucto, N.B. The objects of the company are set out to be to purchase, lease or otherwise acquire the rights and franchises of the Kent Electric Co. (Ltd.), and of the Kent Telephone Lines Co. (Ltd.), as well as of any other similar company; to construct telephone lines in Kent, Northumberland and Westmoreland, to lay cables in connection with the same, and to carry on a general telephone business.

PURCHASING AGENTS' GUIDE.

(Continued from third page of Cover.)

Cement Machinery	Jas. W. Pyke & Co.	Montreal.
Chains	Rice Lewis & Son	Toronto.
Coal Haulage Ropes	The B. Greening Co.	Hamilton, Ont.
Concrete	Thorn Cement Co.	Buffalo, N.Y.
Concrete Mixers and Rock Crushers	F. H. Hopkins & Co.	Montreal.
	W. H. C. Mussen & Co.	Montreal.
Contractors' Plant	F. H. Hopkins & Co.	Montreal.
	T. A. Morrison & Co.	Montreal.
	W. H. C. Mussen & Co.	Montreal.
Conveyor Belts, Rubber	The Gutta Percha & Rubber Mfg. Co. of Toronto.	
Corrugated Furnaces	Continental Iron Works	Brooklyn, N.Y.
Cross Arms, Top Pins & Slide Blocks	Canadian General Electric Co.	Toronto.
	The Firstbrook Box Co.	Toronto.
Cross Arm Braces	Canadian General Electric Co.	Toronto.
	Toronto Bolt and Forging Co.	Toronto.
Crossing Gates	General Railway Signal Co.	Buffalo, N.Y.
	The N. L. Piper Railway Supply Co.	Toronto.
Crowbars	Toronto Bolt and Forging Co.	Toronto.
Culvert Pipe (Cast Iron)	Gartshore-Thompson Pipe & Fdry Co.	Hamilton.
Cuts	Acton Burrows Co.	Toronto.
Derrick Ropes	Dominion Wire Rope Co.	Montreal.
	The B. Greening Co.	Hamilton, Ont.
Derricks	F. H. Hopkins & Co.	Montreal.
Door Signs	Acton Burrows Co.	Toronto.
Drawing Materials	Eugene Dietzgen Co.	New York.
Dredges	The Bertram Engine Works Co.	Toronto.
Drilling Machines	The John Bertram & Sons Co.	Dundas, Ont.
Drills	W. Abbott	Montreal.
Dry Goods	The Hudson's Bay Company.	
Dynamo and Electric Castings	American Brake Shoe & Fdry Co., Mahwah, N.J.	
Economizers	Babcock & Wilcox (Ltd.)	Montreal.

(Continued on page 87.)

CANADIAN SHIPBUILDING COMPANY LIMITED

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35 tons, size 14 x 22, 110 S.P.
30 Dump Cars, narrow gauge, 2½ yards.
—Boilers, Engines, Steam Shovels, etc.—



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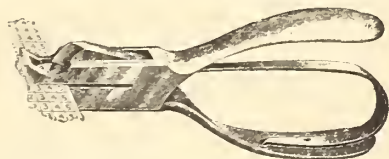
SEE AMERICAN MACHINIST, SEPTEMBER NUMBER, PAGE 1149

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Mfrs. of Set, Cap and Special
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Railway & Shipping World, CHICAGO
Toronto, Ont.

PURCHASING AGENTS' GUIDE.

(Continued from page 85.)

Electric Car Route Signs

Acton Burrows Co. Toronto.

Electric Cranes

Canada Foundry Co. Toronto.

Dominion Bridge Co. Montreal.

W. H. C. Mussen & Co. Montreal.

Electric Ry. Brake Shoes

American Brake Shoe & F'dry Co., Mahwah, N. J.

Elevator Belts, Rubber

The Gutta Percha & Rubber Mfg. Co. of Toronto.

Enameled Iron Signs

Acton Burrows Co. Toronto.

Engineers' Supplies

The Gutta Percha & Rubber Mfg. Co. of Toronto.

The James Morrison Brass Mfg. Co. Toronto.

Williams & Wilson. Montreal.

Engines, Holsting

The Bertram Engine Works Co. Toronto.

Engines, Stationary & Marine

The Bertram Engine Works Co. Toronto.

Canada Foundry Co. Toronto.

Polson Iron Works. Toronto.

Engines, Steam

Erie Heating Co. Chicago, Ill.

Williams & Wilson. Montreal.

Engraving

Toronto Engraving Co. Toronto.

Express Office Signs

Acton Burrows Co. Toronto.

Feedwater Heaters

Babcock & Wilcox (Ltd.) Montreal.

Williams & Wilson. Montreal.

Fencing

Canada Foundry Co. Toronto.

Canadian Steel and Wire Co. Hamilton, Ont.

Page Wire Fence Co. Walkerville, Ont.

Fire Brick

Garden Sand Co. Chicago, Ill.

Flags

Rice Lewis & Son. Toronto.

The Hudson's Bay Company.

Flour

The Hudson's Bay Company.

Foghorns

Rice Lewis & Son. Toronto.

Forgings

Crosen Car Mfg. Co. Cobourg, Ont.

General Railway Signal Co. Buffalo, N.Y.

Furnaces

Continental Iron Works. Brooklyn, N.Y.

Gas and Electric Fixtures

The James Morrison Brass Mfg. Co. Toronto.

Gasoline Engines

Goold, Shapley & Muir Co. Brantford, Ont.

Gas Pipe (Cast Iron)

Gartshore-Thompson Pipe & F'dry Co. Hamilton.

Gates

Canada Foundry Co. Toronto.

Page Wire Fence Co. Walkerville, Ont.

Gauges, Steam and Vacuum, etc.

The James Morrison Brass Mfg. Co. Toronto.

Grain Elevators

John S. Metcalfe Co. Chicago, Ill.

Groceries

The Hudson's Bay Company.

Handcars

Crosen Car Mfg. Co. Cobourg, Ont.

Hardware

Rice Lewis & Son. Toronto.

The Hudson's Bay Company.

Headlights

N. L. Piper Railway Supply Co. Toronto.

Headlinings

Crosen Car Mfg. Co. Cobourg, Ont.

Heaters

Erie Heating Co. Chicago, Ill.

Heating for Power Plants

Erie Heating Co. Chicago, Ill.

Hose

Rice Lewis & Son. Toronto.

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The Gutta Percha & Rubber Mfg. Co. of Toronto.

Hose, Fire

The Gutta Percha & Rubber Mfg. Co. of Toronto.

Hose, Suction

The Gutta Percha & Rubber Mfg. Co. of Toronto.

Illustrations

Acton Burrows Co. Toronto.

Injectors

The James Morrison Brass Mfg. Co. Toronto.

Instruments, Surveying & Engineering

Engene Dietzen Co. New York.

Interlocking and Signalling

General Railway Signal Co. Buffalo, N.Y.

Interlocking Signals

Montreal Steel Works. Montreal.

Iron

Rice Lewis & Son. Toronto.

Iron and Steel Castings

American Brake Shoe & F'dry Co. Mahwah, N.J.

Iron Signs

Acton Burrows Co. Toronto.

Japans

McCaskill, Dougall & Co. Montreal.

Journal Bearings

Canada Foundry Co. Toronto.

Crosen Car Mfg. Co. Cobourg, Ont.

Jas. W. Pyke & Co. Montreal.

St. Thomas Brass Co. St. Thomas, Ont.

Lager Beer, &c.

E. L. Drewry. Winnipeg.

Lamps, Incandescent

Canadian Westinghouse Co. Hamilton, Ont.

Lamps & Lanterns

Continental Heat & Light Co. Montreal.

The Hudson's Bay Company.

Rice Lewis & Son. Toronto.

N. L. Piper Railway Supply Co. Toronto.

Lathes

The John Bertram Sons Co. Dundas, Ont.

Williams & Wilson. Montreal.

Launches

The Bertram Engine Works Co. Toronto.

Polson Iron Works. Toronto.

Lights, Contractors and Wrecking

Continental Heat & Light Co. Montreal.

F. H. Hopkins & Co. Montreal.

W. H. C. Mussen & Co. Montreal.

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Lights, Portable

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Locomotive Boiler Washer, Automatic

Erie Heating Co. Chicago, Ill.

Locomotive Brass Works

The James Morrison Brass Mfg. Co. Toronto.

Locomotive Driver Brake Shoe

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Baldwin Locomotive Works. Philadelphia, Pa.

Locomotive and Machine Co. of Montreal

Locomotives (Electric)

Baldwin Locomotive Works. Philadelphia, Pa.

Canada Foundry Co. Toronto.

Locomotive and Machine Co. of Montreal

Locomotives (Logging)

Lima Locomotive and Mach. Co. Lima, Ohio.

Locomotives (Rack)

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Canadian Locomotive Co. Kingston, Ont.

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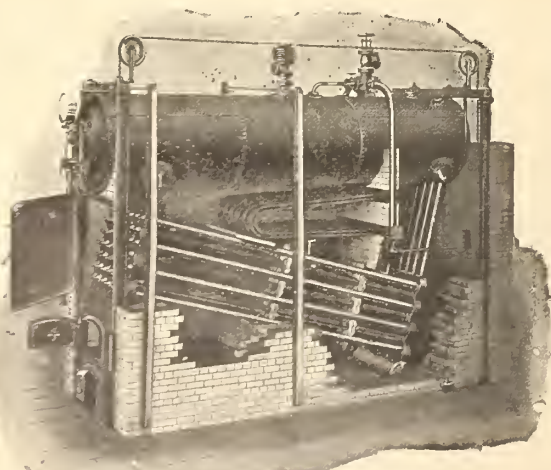
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(Continued on page 85.)

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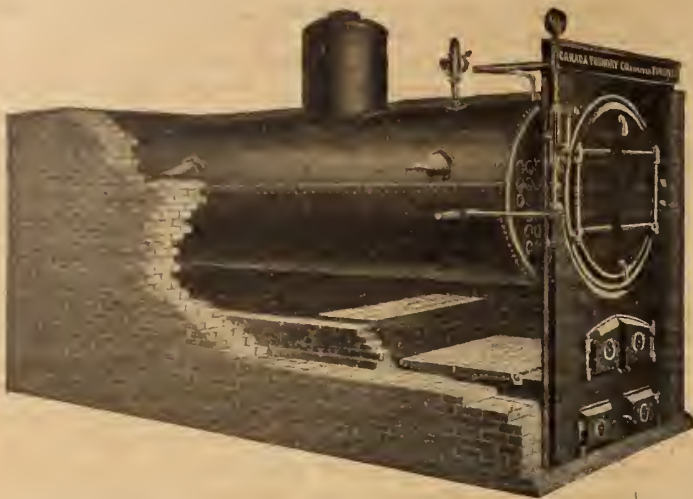
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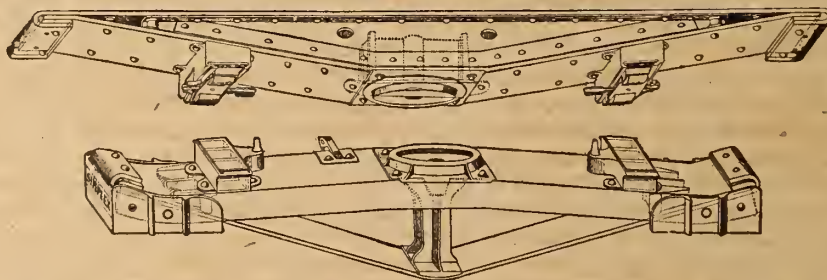
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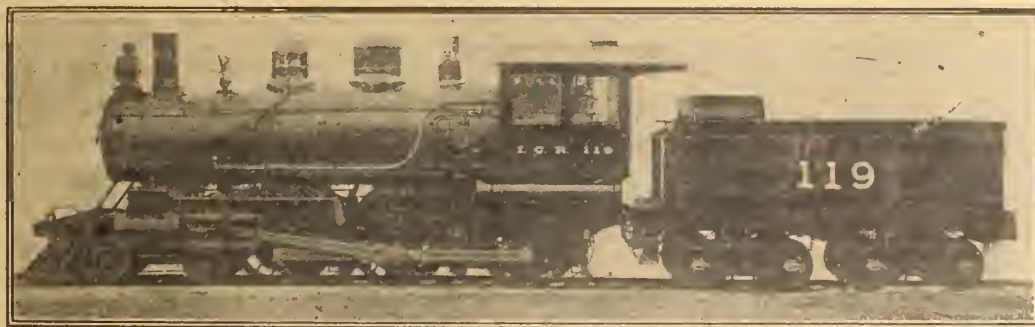
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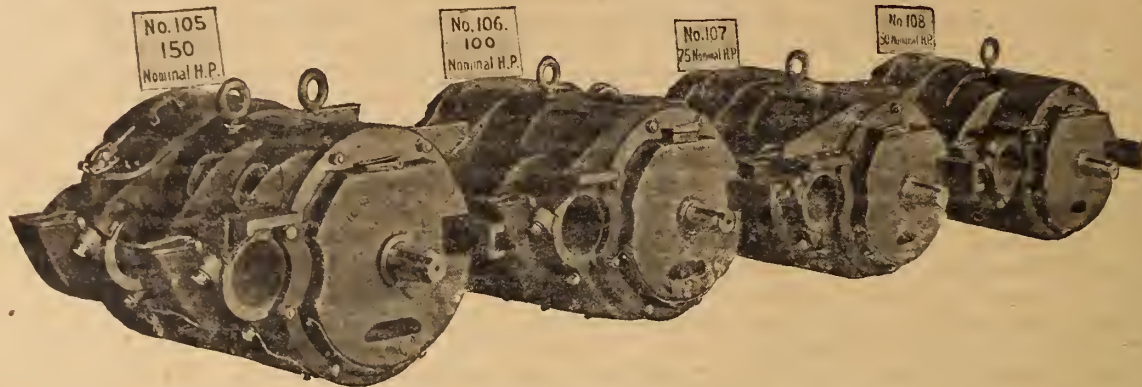
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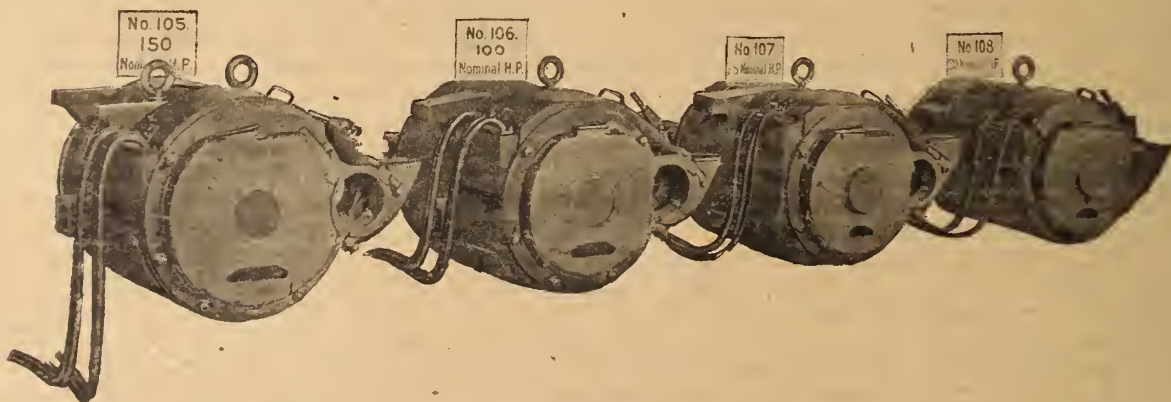
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RAILWAY DEVELOPMENT.

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Alaska Central Ry.—The 20 miles of line from Seward, Alaska, inland, already completed, together with the charter to construct a line across country to the Yukon River near Dawson City, has been acquired by a syndicate of Toronto, Montreal, and Chicago men. The officers of the new company are President, A. C. Frost, Chicago, Ill.; Vice-President, H. C. Osborne, Toronto; General Manager and Chief Engineer, W. B. Poland, Chicago; Treasurer, G. L. Francis, Toronto; Secretary, J. A. Haight, Seattle, Wash. Construction work is being proceeded with, and it is hoped to have the line completed to the Tanana Copper Mines, about 100 miles from the coast, by the end of the current year. (Feb., pg. 45.)

British America Pulp, Paper and Ry. Co.—Application will be made at the current session of the Dominion Parliament for an act extending the time for the construction of the company's projected electric railway from St. Alphonse to the Bear's Falls, on the Chamouchouan River, Que., with branches to Roberval, La Tuque, and other points in Quebec.

Alberta Central Ry.—The Dominion Parliament will be asked at the current session for an act extending the time for the commencement of the company's projected line from township 18, range 23, west of the 4th meridian, easterly to a point in township 29, range 11, west of the 4th meridian.

Alberta Ry. and Irrigation Co.—It is proposed to complete the extension of the old St. Mary's River Ry. into Kimball, Alta., which point is about 16 miles from the present track end. The line was constructed in 1904 from Raley Jct., for a distance of 7 miles towards Kimball. (Feb., pg. 45.)

Algoma Central and Hudson Bay Ry.—The location of Mekatina station is at mileage 64, and track has been laid for two miles beyond that point, as far as the crossing of the Chippewa River.

The Dominion Parliament is being asked at its current session for an act authorizing, among other things, an extension of time for the completion of the company's projected railway. (Feb., pg. 45.)

Algoma Copper Range Ry.—A further notice has been published in connection with the application being made at the current session of the Dominion Parliament for the incorporation of a company with this title. In the first notice the railway to be constructed was described as being

from Batehawaung Bay, easterly to the Superior Copper Mines, thence easterly to Aubrey Falls, Ont., a distance of about 75 miles. In the additional notice the route is described as being from Batchewana Bay easterly to the Superior Copper Mines, thence easterly a distance of about 120 miles to the main line of the C.P.R., between Cartier and Biscotasing, Ont., the variation from the original notice being in the spelling of the starting point on Lake Superior, and the making of the eastern terminal point about 50 miles further east than Aubrey Falls. (Feb., pg. 45.)



ALBERT CLEMENTS KILLAM, K.C.
Chief Railway Commissioner for Canada.

Atlantic, Quebec and Western Ry.—Application will be made next session of the Quebec Legislature for an act regarding the transfer of land to the company for the purposes of its undertaking.

The Dominion Parliament has given a second reading to the bill extending the time for the construction of the line from Paspébie easterly for 10 miles, and relieving the company from the necessity of constructing the line along the shore to Gaspé, and the line through the interior from Gaspé to Causapsal, Que., concurrently. (Feb., pg. 9.)

Bay of Quinte Ry.—Application will be made at the current session of the Dominion Parliament for an act authorizing the construction of a branch line from Bridgewater to a point near the Actinolite mines, Addington county, Ont., and also extending the time for the construction of the other sections of the company's line. (June, 1904, pg. 181.)

Brantford and Woodstock Ry.—Application is being made at the current session of the Dominion Parliament for an act incorporating a company with this title to construct a railway between Brantford and Woodstock, Ont. The applicants for the charter are D. W. Karn, W. T. Park, M. Douglas, of Woodstock; C. H. Waterous, L. Harris, E. Sweet, J. Henly, J. Muir, Brantford. Local reports state that the projected line is being promoted in the interests of the Toronto, Hamilton and Buffalo Ry.

Brockville, Westport and Northwestern Ry.—Application is being made at the current session of the Dominion Parliament for an extension of time for the construction of the proposed extension northerly from Westport of its railway. (Nov., 1904, pg. 405.)

Calgary and Battleford Ry.—The applicants at the current session of the Dominion Parliament for an act to incorporate a company with this title to construct a railway from Calgary, Alta., to Battleford, Sask., thence northerly to Prince Albert, Sask., are: C. W. N. Kennedy, J. C. Thompson, F. O. Fowler, G. A. Metcalfe, H. E. Sharpe, W. J. Cummings, Winnipeg, Man. (Feb., pg. 45.)

Calgary, Red Deer and Battleford Ry.—The Dominion Parliament has given a second reading to the bill to incorporate a company with this title to construct a railway from Calgary, Alta. to Battleford, Sask. The applicants for the charter are: A. J. McArthur, E. McBride, C. A. Stuart, Calgary, Alta.; J. D. McGregor, Brandon, Man.; M. McGregor, Detroit, Mich.; A. E. Hitchcock, London, Eng. (Jan., pg. 9.)

Canada and Michigan Bridge and Tunnel Co.—In applying for an extension of five years for the construction of a bridge and ten years for the construction of a tunnel or tunnels to connect the railway lines on the Canadian side of the Detroit River with those on the Michigan side of the river near Detroit, at the current session of the Dominion Parliament, it was stated that the delay in going on with the work was occasioned by reason of the U.S. Government not having given its consent

(Continued on page 93.)

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ing the preservation of peace in the vicinity
of public works, on an area within 10 miles
on either side of the Toronto-Sudbury line of
the C.P.R., now under construction from
Romford to Byng Inlet, Ont.

W. F. Maclean, M.P. for East York, Ont.,
has introduced a bill at the current session of
the Dominion Parliament providing for a 2c.
a mile passenger rate on railways where the
receipts are \$3,000 a mile a year or over; 2½c.
a mile where the receipts are between \$2,000
and \$3,000 a mile; and 3c. a mile where the
receipts are under \$2,000 a mile.

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town or village a railway crosses a highway
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not be exceeded, unless the company pro-
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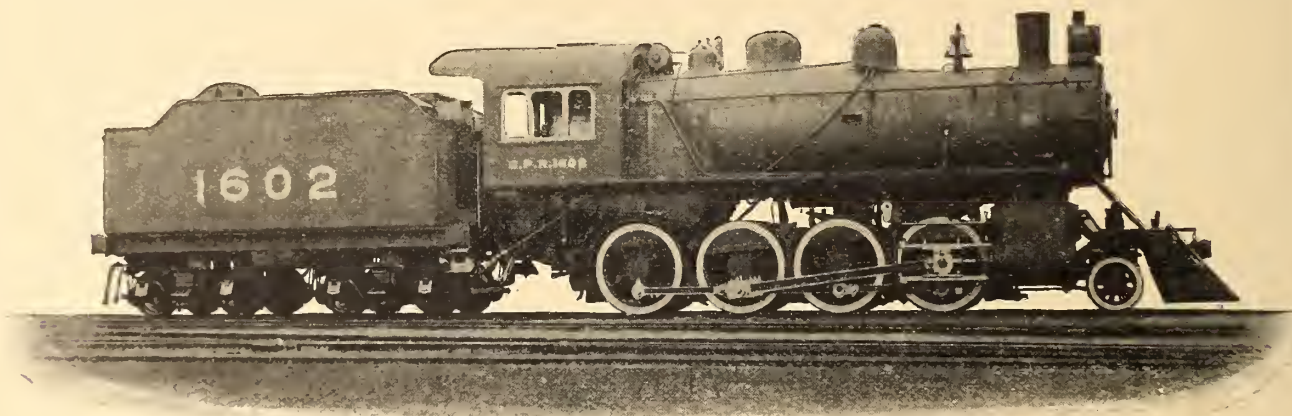
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persons using the highway, has been read a
second time in the House of Commons, and
has been referred to the Railway Committee.

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RAILWAY DEVELOPMENT.

(Continued from page 89.)

to the construction of a bridge. In the event of the opponents to the bridge being successful, the company would be compelled to construct a tunnel. (Jan., pg. 9.)

Canada Southern Bridge Co.—An extension of time for the construction of the proposed bridge over or tunnel under the Detroit River at Amherstburg is being asked at the current session of the Dominion Parliament. The company has already expended about \$1,500,000 in bridge construction at this point, but has not yet secured the approval of the U.S. Government to bridge the main channel. (Jan., pg. 11.)

Canada Southern Ry.—The Dominion Parliament has given a second reading to the company's proposed act, to extend the time for the construction of branch lines. (Jan., pg. 11.)

Cape Breton Ry.—The residents of Isles Madam, N.S., are agitating for the construction of a tramway to connect with the C. B. Ry., and a proposal to ask for a subsidy for the construction of such a line has been made. (Feb., pg. 45.)

Colechester Coal and Ry. Co.—The route of this projected line from De Bert station on the Intercolonial Ry., to the coal mines at De Bert Mines, N.S., about four miles, was surveyed during the fall of 1904, by J. J. Taylor, C.E., New Glasgow, N.S. The profile and other plans and specifications have been prepared and it is expected that construction will be commenced in the spring. (Feb., pg. 45.)

Crow's Nest Southern Ry.—The proposal to extend the line from Fernie to Michel, B.C., about 23 miles, is likely to be gone on with this year. Surveyors, representing the Great Northern Ry., U.S., which controls the line, have recently gone over the route. (Jan., pg. 11.)

Detroit River Bridge.—Negotiations are still in progress between the G.T.R., the Michigan Central Rd., and the Pere Marquette Rd., with a view to constructing a bridge across the Detroit River between Detroit, Mich., and Windsor, Ont., for the joint use of all the lines. The principal difficulty in the way of coming to a decision is the site. A report current in Detroit is to the effect that the Michigan Central Rd. will give up the idea of a joint bridge and will proceed with the construction of a tunnel to connect its line with that of its Canadian extension, the Canada Southern. Another report states that whilst the tunnel will be constructed by the Michigan Central Rd., it will be used, under an agreement, by the G.T.R.

Emerson, Man., Union Station.—The question of the construction of a joint station at Emerson, Man., to be used by the C.P.R. and its U.S. subsidiary, the Minneapolis, St. Paul and Sault Ste. Marie Ry., the Canadian Northern Ry. and the Great Northern Ry., U.S., has been under discussion. The suggestion was to erect a station right on the boundary line, one half being in Manitoba and the other south of the line, in N. Dakota. The question was taken up with the Customs Department, but that department was opposed to the erection of the station as proposed. Whether this will finally dispose of the matter or not is not quite clear.

Georgian Bay and Seaboard Ry.—The Dominion Parliament has given a second reading to the bill for the amalgamation of a company with this title to construct a railway from Georgian Bay, between Port Severn and Pentanguishene, through the counties of Simcoe, Ontario, Victoria, Peterborough, Hastings, Lennox, Addington, Frontenac and Lanark, or either of them, to a junction with

the C.P.R. The applicants for the charter are W. D. Matthews, H. C. Hammond, L. A. Hamilton, H. Beatty, F. G. Osler, of Toronto. The company is being promoted in the interests of the C.P.R., and would give that company an additional port on Georgian Bay, with a shorter haul from the lake to Montreal than its present port at Owen Sound. (Jan., pg. 11.)

Great Northern Ry. of Canada.—We were recently advised that the grading on the branch from L'Epiphanie to St. Jacques, Que., 7 miles, had been completed and that track will be laid in the spring. The contractors for the grading were Rogers & Quirk, Montreal. (Sept., 1904, pg. 313.)

Guelph and Georgian Bay Ry.—A meeting of the promoters of this projected railway was held Feb. 2, when it was decided to apply to the Dominion Parliament for an extension of time for the construction of the line. G. B. Ryan, Guelph, Ont., is President of the provisional company. (Sept., 1903, pg. 305.)

The Halifax and Southwestern Ry. is now in operation between Halifax and Liverpool, N.S., about 108 miles, of which 9 miles represents the distance run over the tracks of the old Nova Scotia Central, between Mahone and Bridgewater. In 1903, track was laid for about 9 miles from Mahone towards Halifax, and during 1904, the remainder, 58.41 miles into Halifax, was completed, fully ballasted, and station buildings erected at the most important points. There has also been constructed upon this section 2.26 miles of sidings. Negotiations are in progress with the Intercolonial Ry. respecting terminal facilities in Halifax. Between Bridgewater and Liverpool 30.33 miles of track have been laid, but the ballasting has not been done, so that while a tri-weekly service is being given the time is rather slow. There have been 1.38 miles of sidings constructed on this section. The surveys have been made for the completion of the line between Liverpool and Barrington Passage, 89 miles, but the route has not been finally approved of by the N.S. Government. The difficulty appears to be as to the location of the line in Queen's County near Liverpool, but according to a local paper the location in Shelburne is agreed on, and nearly all the grading between Shelburne and Jordan river on the boundary of Queen's County has been completed. On the Middleton and Victoria Beach line track has been laid for 2.87 miles from Middleton westerly, as well as a quarter of a mile of sidings. Track will be laid on the remaining 36½ miles of grade to Victoria Beach, during the current year. (Feb., pg. 49.)

Hamilton, Galt and Berlin Ry.—Application is being made at the current session of the Dominion Parliament for an act extending the time for the construction of this projected railway, and also for power to construct branch lines to Guelph and to Hespeler, and for other purposes. See Hamilton, Ancaster and Brantford Ry., pg. 111.

Hudson's Bay and Pacific Ry.—The Dominion Parliament will be asked at the current session for an act extending the time for the construction of this projected line from Fort Churchill on Hudson's Bay to Edmonton, Alta.

Intercolonial Ry.—The only section of the line upon which the bridges have not been strengthened to admit of the running of heavy engines and trains is between Chaudiere and St. Hyacinthe, Que., the work to the east of Levis having been completed. It is expected that the work of strengthening the bridges on the last remaining section of the line will be taken in hand this year. The new span for the bridge between New Glasgow and Stellarton, N.B., to replace the temporary trestle work, has been put in. It

is proposed to erect a new bridge at this point, but it is not considered likely that funds will be provided by Parliament for that purpose at the current session.

The double-track work between Halifax and Windsor Jct., N.S., is expected to be completed early in the spring. (Jan., pg. 11.)

International Ry. of New Brunswick.—Track has been laid to the Upsalquitch River, about 20 miles from Campbellton, N.B., and a two span bridge over that river was expected to be completed by the end of Feb. Some grading has been done on the extension from the Upsalquitch River towards St. Leonards, and the 88 miles to that point is expected to be completed by the end of the current year. Thos. Malcolm, the contractor, and J. M. Shanly, Chief Engineer, have their headquarters at Campbellton, N.B., (Jan. pg. 11.)

James Bay Ry.—The people of Orillia are desirous of having the line located through the town, but to do this would mean the construction of seven miles more line than would be the case if the present located route is followed. (Feb., pg. 49.)

Kootenay Central Ry.—W. Whyte, Second Vice-President C.P.R., upon returning to Winnipeg from Montreal, recently, stated that the C.P.R. had not decided to construct this projected line. The company's surveyors were going through the country with a view of ascertaining definitely the cost and the probable traffic. Some reports doubted whether the line would pay, but the residents who were anxious to have the line constructed were confident it would pay. It was doubtful, however, if it would be possible to include the line in the company's immediate programme. (Jan., pg. 13.)

London and St. Clair Ry.—W. D. Matthews, H. C. Hammond, L. A. Hamilton, H. Beatty, R. A. Smith, of Toronto, are applying at the current session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from the C.P.R. west of London to near Sarnia, Ont. With one exception the applicants are the same as in the application for the incorporation of the Georgian Bay and Seaboard Ry. Co., and are acting in the interests of the C.P.R. (Jan., pg. 13.)

Manitoulin and North Shore Ry.—The Dominion Parliament is being asked at the current session for an act extending the time for the construction of the projected railway lines; confirming its bond issue and the mortgage given to secure the same. Rowell, Reid, Wilkie, Wood and Gibson, Toronto, are solicitors for the promoters. (Sept., 1903, pg. 313.)

Morrissey, Fernie and Michel Ry.—This is the title of a subsidiary company of the Crow's Nest Coal Co., which operates about 12 miles of line in connection with its collieries. It is independent of the Crow's Nest Southern Ry., which is operated by the Great Northern Ry., U.S.A. The lines owned by the M.F. and M. Ry. include six miles connecting the collieries at Carbonado with the C.P.R. and the Crow's Nest Southern Ry. at Fernie, and 1.7 miles from the Crow's Nest Southern Ry. Junction at Fernie to the coke ovens. The balance of the line operated, 5.8 miles, is the Coal Creek branch of the C.P.R., which has been leased for 20 years. The company has under survey a line of its own from the coke ovens at Fernie to the Coal Creek mines, about 6.9 miles.

Moose Jaw and Edmonton Ry.—A. Hitchcock, O. B. Fysh, J. H. and W. Grayson, A. R. Turnbull, G. M. Amable, R. H. Ridell, E. N. Hopkins, and J. H. McCulloch, of Moose Jaw, Assa., are applying at the current session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from near Moose

Jaw, Assa., to Edmonton, Alta., crossing the elbow of the South Saskatchewan River. (Feb., pg. 49.)

New Brunswick Southern Ry.—We are advised that it is the intention of Russel Sage, New York, who owns the line, to put it in a first-class condition for through traffic, and that surveys are about to be made in connection with the work. The alterations proposed include a change of location so as to take in what is known as New River Beach, and the making of connections with the Intercolonial Ry. at St. John, N.B., and the Maine Central at Calais, Me. A contract for the supply of steel bridges has been placed with the Dominion Bridge Co., Montreal, and 150,000 ties have been ordered for June delivery. (Dec., 1904, pg. 429.)

Ontario, Hudson's Bay and Western Ry.—The Dominion Parliament will be asked at its current session for an act authorizing an extension of time for the commencement and completion of the company's projected lines. This is one of the numerous charters for the construction of railways in Northern and Western Ontario owned by the Lake Superior corporation.

Orford Mountain Ry.—In addition to the 12 miles of track laid from Eastman to Potton Springs, the O.M. Ry. also laid 2 miles of track from Kingsbury easterly towards Windsor Mills, Que., in 1904. The grading and tracklaying was done entirely by the company. The projected extension from Kingsbury to Windsor Mills, 10 miles, has been located, and construction will be proceeded with during the current year. H.C. Cleveland, Kingsbury, Que., is Chief Engineer. (Jan., pg. 13.)

Ottawa and New York Ry.—Press reports state that it is intended by the New York Central and Hudson River Rd., which has recently acquired this line and its continuation in New York to Tupper's Lake, to effect considerable improvements in the line so as to make it available for the running of heavy engines and trains, such as are used on the N.Y.C. and H.R. Rd. (Jan., pg. 13.)

Ottawa River and Northern Ry.—The Dominion Parliament will be asked at its current session for an act incorporating a company with this title, to construct a railway from near Grenville, to Monte Bello, thence northerly to the Lievre River, at the point where the Eastern Division of the Grand Trunk Pacific Ry. will cross. Power is also asked to connect with other railways at Grenville. Hibbard and Orr, Montreal, are solicitors for the applicants.

Pacific Northern and Omineca Ry.—The British Columbia Legislature will be asked this session to pass an act authorizing an extension of time for the commencement of this projected railway, and otherwise amending the act of incorporation. Barnard and Rogers, Victoria, B.C., are solicitors for the applicants.

Prince Edward Island Ry.—Surveys are being made for the construction of a line from Souris to Elmira, 15 miles, and from Emerald Jet. to New London, 20 miles, but nothing has been decided as to construction.

Replying to a question in the House of Commons recently, the Minister of Railways stated that a site had not been selected for the projected new station at Charlottetown, P.E.I., but he was going to the Island at an early date, and would select the site.

The Minister of Railways stated in the House of Commons, Jan. 23, that the cost of the Murray Harbor bridge to Dec. 31, 1904, was \$1,018,711.93, and the total expenditure on the Hillsboro River bridge to the same date was \$1,220,968.32. (Feb., pg. 51.)

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Quebec and Lake St. John Ry.—The La Tuque branch, which will be 40 miles long, starts from La Tuque Jct., and track has been laid on it for the first mile. Work is being proceeded with during the winter. Jos. Paquet, La Tuque Jct., Que., is the contractor. Three miles of track were laid during 1904 on a projected extension from Valecartier to Gosford, 15 miles. It has not been decided when any further construction will be gone on with on this extension. (Jan., pg. 13.)

Quebec Bridge and Ry. Co.—We were advised, Jan. 21, that the steel falsework for carrying the electric cranel for raising meta, enclosing timber falsework for carrying cars loaded with bridge members for the south anchor arm, had been completed. The permanent metal for the south anchor arm is in course of delivery; at that time over 2,400 tons had arrived at Quebec, and about 17,124 tons, or about one-half the metal required, had been manufactured. It is hoped to have the south anchor arm, and the main posts for the long span completed during the current year. The bridge is of the cantilever type, and when completed will contain the longest span in the world, 1,800 ft., the present longest span being the 1,710 ft. span in the Forth bridge, Scotland. The total length of the bridge will be 3,240 ft., or a little more than half the length of the Forth bridge. It will consist of two approach spans, each 220 ft. in length, two shore arms of 500 ft. each in length, and the central span of 1,800 ft. The width of the floor will be 63 ft., and provision is made for a double track railway, two roadways for vehicles, and electric tracks. In cantilever bridges of this magnitude the individual members are necessarily of huge proportions, the main posts, for instance, being 325 ft. in length, and each weighs 750 tons.

The work of construction to connect the bridge with the railways has been commenced, and a mile of track has been laid from the Intercolonial Ry. track towards the bridge, and progress is being made on the remaining $1\frac{1}{4}$ miles, which will connect with the south end of the bridge. A line from the north end of the bridge into Quebec city, $6\frac{1}{2}$ miles in length, is also under construction. M. P. Davis, who had the contract for the substructure of the bridge, has the contract for the construction of the railway lines. E. A. Hoare is Chief Engineer in charge of the construction. (June, 1904, pg. 189.)

Quebec Central Ry.—We are advised that nothing has been definitely decided in connection with the proposed extension from Scott's to Levis, Que., as some arrangements, apart from those under the company's control, are not completed. (Sept., 1904, pg. 315.)

Quebec Oriental Ry.—The Quebec Legislature will be asked at its next session for an act extending the time for the commencement and completion of its projected railways, empowering it to enter into agreements with other companies, and to acquire other companies.

Saguenay and James Bay Ry.—The Quebec Legislature will be asked at its current session to pass an act giving to the Trans-Canada Ry., or the Quebec and Lake St. John Ry., a preferential right to acquire the charter and rights of the company.

Salmon River and Northern Ry.—Application will be made at the current session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from Hawkesbury, Ont., to Monte Bello, Que., thence by the Salmon River and other valleys to the crossing of the La Lievre River by the projected National Transcontinental Ry. Hibbard and Orr, Montreal, are solicitors for the applicants.

Saskatchewan Bridge Co.—Application will be made at the current session of the Dominion Parliament for an act authorizing the construction of a bridge across the Saskatchewan River between Strathcona and Edmonton, Alta., for railway and general traffic. It is intended that the bridge may be used by any railway whose tracks are connected with it. The notice of application is signed by W. H. Biggar, General Solicitor of the G.T.R., and is evidently in the interests of the Grand Trunk Pacific Ry.

Spokane-International Ry.—Articles of incorporation have been filed at Spokane, Wash., by D. C. Corbin, for a company with this title, for the purpose of constructing a railway from Spokane to the International boundary in the Moyie River Valley, where it is proposed to connect with the C.P.R.

St. Francis Valley Ry.—Application will be made next session of the Quebec Legislature for the incorporation of a company with this title, to construct a railway from near St. Francis, on the St. Francis branch of the Temiscouata Ry., south-west of Lake Pohenegamock, to near the International boundary at the outlet of the lake.

St. Mary's and Western Ontario Ry.—J. M. Adam, T. O. Robson, F. E. Butcher, P. S. Armstrong, J. Chalmers, R. S. Box, R. W. Dillon, of St. Mary's, Ont.; J. A. Rollins, J. W. Taylor, T. B. Carling, of Exeter, are applying at the current session of the Dominion Parliament for an act incorporating a company with this title, to construct a railway from near Woodstock to near Sarnia, via St. Mary's and Exeter, Ont. (Jan., pg. 15.)

Sydney and Louisburg Ry.—An extension of $5\frac{1}{2}$ miles in length from Caledonia Jct. to colliery No. 6, was completed during 1904, and a mile of track connecting the S. and L. Ry. with the station of the Marconi Wireless Telegraph Co., at Glace Bay, N.S., was constructed by that company. (Oct., 1903, pg. 345.)

Temagami Ry.—Application is being made at the current session of the Dominion Parliament for power to construct an extension of this projected line, from near Sturgeon Falls to the Georgian Bay near the mouth of the French River. Royce and Henderson, Toronto, are solicitors for the promoters. (Sept., 1904, pg. 317.)

Temiskaming and Northern Ontario Ry.—The total length of this line, owned by the Ontario Government, at the end of 1904 was 138 miles, of which 112 miles from North Bay to New Liskeard was being operated by the Government, and of the other 26 miles, ballasting and other work was being done, and the contractor was running trains over it. The line is under contract for about 100 miles north of New Liskeard, and work is in progress on the grade beyond mileage 138 from North Bay. The line is intended to effect a junction with the line to be constructed by the Transcontinental Ry. Commission from Moncton, N.B., to Winnipeg, Man., and the length of the T. and O.N. Ry. will be determined by whether the Moncton-Winnipeg line will go north or south of Lake Abitibi. In the one case the line would be about 75 miles in length from New Liskeard, and in the other about 175 miles. (Feb., pg. 51.)

Toronto Union Station.—The Board of Railway Commissioners has issued an interim order respecting the Toronto esplanade and the Union Station matter, authorizing the expropriation of all the land asked for, compensation to be fixed as of the date of the first application to take any particular piece of land, and interest thereon at the rate of 5%. No instructions will be issued to the arbitrators as to compensation for business losses, this being left an open question. It was on this question that there was a difference of opinion between Deputy Chief Com-

missioner Bernier and Commissioner Mills. The Chief Commissioner agrees with the latter that the Board had power to authorize the arbitrator to provide for business losses, if it were disposed to do so; but held with the former that it was not expedient to make any order to the arbitrators regarding the awarding of compensation.

Vancouver, Victoria and Eastern Ry. and Navigation Co.—The company has under contemplation the extension of the line from Midway, B.C., to Orville, Wash., about 65 miles. The surveys have all been completed, but no contracts have been let. Jas. H. Kennedy, Grand Forks, B.C., is Chief Engineer. (Jan., pg. 15.)

Vancouver, Westminster and Yukon Ry.—Plans have been filed showing the additional land which it is proposed to acquire for terminal facilities in Vancouver, B.C. Press reports state that it is expected to make a start with the extension of the line northerly from Vancouver towards the Skeena country during the year. Agents of the company have recently been over a portion of the projected route taking options on the land. The Dominion Parliament, at its current session, is being asked for an act authorizing the fixing of the capital stock at \$12,000,000, and granting power to enter into agreements with the Vancouver, Victoria and Eastern Ry. and Navigation Co. (Jan., pg. 15.)

Winnipeg and Lake Shore Ry.—The Manitoba Legislature, at its last session, passed an act extending the time for the construction of the line proposed to be constructed by the Winnipeg and St. Andrew's Rapids Ry., and changing the name of the company to the Winnipeg and Lake Shore Ry. The line to be constructed will extend from Winnipeg east of Lake Winnipeg to the northern boundary of the province, and power is also given to construct branch lines.

Wolfe, Megantic and Lotbiniere Ry.—Application will be made next session of the Quebec Legislature for an act extending the time for the commencement and completion of this projected railway from Lime Ridge, Wolfe county, to Quebec Bridge, by way of the Thames River valley, and to otherwise amend the act of incorporation. (Feb., 1903, pg. 49.)

Woodstock and Lake Huron Ry.—Application is being made during the current session of the Dominion Parliament for an act incorporating a company with this title, to construct a railway from Woodstock to a point on Lake Huron between Kettle Point and Kincardine, Ont., through the counties of Oxford, Perth, Middlesex, Lambton, Huron and Bruce, or any of them. McKay and Mahon, Woodstock, Ont., are solicitors for the promoters.

York and Carleton Ry.—A projected extension of $4\frac{1}{2}$ miles from Stanley village to Ryan Brook, N.B., has been surveyed, but no contracts have been let, nor has anything been definitely decided as to the probable date of construction.

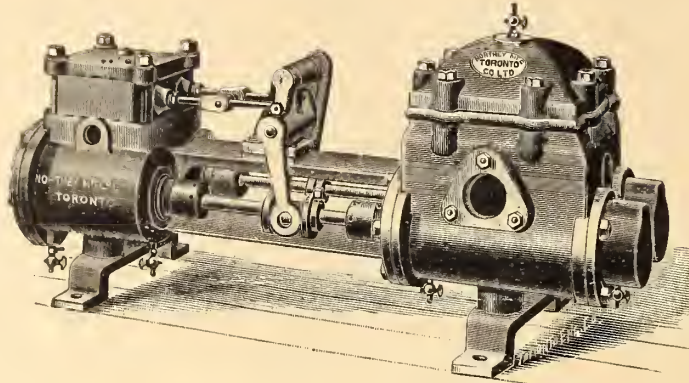
Canadian Northern Ry.—Gross earnings for Jan., \$364,000; working expenses, \$175,500; net earnings, \$88,500, against \$211,800 gross, \$135,600 working expenses, and \$76,200 net earnings for Jan., 1904. Aggregate net earnings for seven months to Jan. 31, \$811,400, against \$673,800 for same period, 1903-04. Mileage in operation, 1,602, against 1,350 miles in 1903.

The Ottawa and New York Ry. Co. is applying to the Dominion Parliament for an act exempting it from the operation of sec. 5 of the Railway Act Amendment Act, 1904, which provides that the majority of the directors of a railway company receiving aid from the Dominion Government shall be British subjects.

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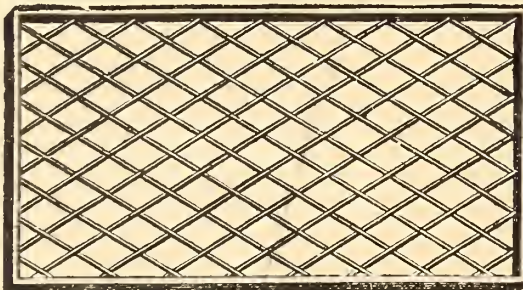
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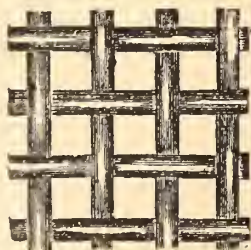
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TORONTO, ONT.

March Birthdays.

Many happy returns of the day to
P. S. Archibald, C.E., General Manager
Elgin and Havelock Ry., at Moncton, N.B.,
born at Truro, N.S., Mar. 21, 1848.

C. N. Armstrong, ex-General Manager At-
lantic and Lake Superior Ry., at Montreal,
Que., born at Maskinonge, Que., Mar.
19, 1850.

Hon. A. G. Blair, ex-Chief Railway Com-
missioner for Canada, Ottawa, born at
Fredericton, N.B., Mar. 7, 1844.

D. E. Brown, General Agent C.P.R. for
China, Japan, etc., at Hong Kong, born at
Owen Sound, Ont., Mar. 20, 1855.

G. J. Bury, General Superintendent Central
division C.P.R. at Winnipeg, Man., born at
Montreal, Que., Mar. 6, 1866.

J. A. Cameron, ex-Superintendent C.P.R.
at Cranbrook, B.C., born at Pictou, N.S.,
Mar. 5, 1855.

F. G. J. Comeau, General Freight Agent
Dominion Atlantic Ry. at Halifax, N.S., born
at Meteghan River, N.S., Mar. 10, 1859.

A. E. Cox, Storekeeper Canadian Northern
Ry. at Winnipeg, Man., born at Hudders-
field, Eng., Mar. 12, 1863.

H. B. Curtis, General Superintendent New-
foundland Express Co. at St. John's, Nfld.,
born at Adrian, Ohio, Mar. 21, 1848.

Hon. L. J. Forget, President Montreal
Street Ry. Co., born at Terrebonne, Que.,
Mar. 11, 1853.

C. O. Foss, on survey National Transconti-
nental Ry., in New Brunswick, born at Went-
worth, N.H., Mar. 20, 1852.

H. W. Gays, General Manager New York
and Ottawa Line at Ottawa, Ont., born at
Brant, Erie co., N.Y., Mar. 21, 1848.

F. Grundy, Vice-President and General
Manager Quebec Central Ry., at Sherbrooke,
Que., and President Temiscouata Ry., born
at Bury, Lanc., Eng., Mar. 28, 1836.

J. Halstead, chief clerk to Assistant Gen-
eral Freight Agent C.P.R. at Vancouver, B.C.,
born at Bracebridge, Ont., Mar. 2, 1877.

R. M. Hannaford, Engineer Permanent
Way, Buildings and Bridges, Montreal Street
Ry., Montreal, born there, Mar. 22, 1865.

W. Harty, M.P., President Canadian Loco-
motive Co., Kingston, Ont., born in Biddulph
tp., Middlesex, Ont., Mar. 8, 1847.

C. A. Hayes, Assistant General Freight
Agent G.T.R., Chicago, Ill., born at West
Springfield, Mass., Mar. 10, 1865.

H. S. Heydon, General Agent Canada
Atlantic Ry., at New York city, born at
Newark, N.Y., Mar. 28, 1861.

C. B. Hibbard, General Manager Quebec
Southern Ry., Montreal, born at St. John's,
Que., Mar. 31, 1858.

J. Hobson, Chief Engineer G.T.R. at Mon-
treal, born at Guelph, Ont., Mar., 1834.

T. M. Kirkwood, director Central Ontario
Ry., born at Toronto, Mar. 23, 1859.

F. Lee, Assistant Engineer, C.P.R., Winni-
peg, born at Chicago, Ill., Mar. 7, 1873.

R. W. Long, Division Freight Agent G.T.R.,
at Stratford, Ont., born at Appin, Ont., Mar.
20, 1873.

C. E. Lytle, General Superintendent Duluth,
South Shore and Atlantic Ry., at Marquette,
Mich., born at Newark, Ohio, Mar. 2, 1859.

D. D. Mann, of Mackenzie, Mann & Co.,
and 1st Vice-President Canadian Northern
Ry. Co., Toronto, born at Acton, Ont., Mar.
23, 1853.

Owen McKay, Assistant Engineer, Pere
Marquette Rd., St. Thomas, Ont., born in
Ross tp., Renfrew co., Ont., Mar. 13, 1848.

W. C. Orchard, chief Freight Tariff Bureau
C.P.R., at Montreal, born in London, Eng.,
Mar. 16, 1865.

H. Parry, General Agent Passenger Depart-
ment, New York Central Rd., at Buffalo, N.Y.,
born at Hamilton, Ont., Mar. 27, 1865.

R. Patterson, Master Mechanic G.T.R. at
Stratford, Ont., born at Brantford, Ont.,
Mar. 13, 1860.

J. Ritchie, General Eastern Agent Canada
Atlantic Ry., Boston, Mass., born Mar. 16,
1860.

J. A. Sheffield, ex-Superintendent Sleeping
and Dining Cars, C.P.R., at Montreal, born
at Columbus, Ohio, Mar. 16, 1845.

J. F. Slocum, Assistant Secretary-Treasurer
International Ry. Co., Buffalo, N.Y., born at
Geneva, N.Y., Mar. 25, 1876.

C. J. Smith, General Manager Richelieu
and Ontario Navigation Co., at Montreal,
born at Hamilton, Ont., Mar. 10, 1862.

W. Y. Soper, director Ottawa Electric Ry.
Co., Ottawa, Ont., born at Oldtown, Me.,
Mar. 9, 1854.

W. F. Tye, Chief Engineer C.P.R. at Mon-
treal, born at Haysville, Ont., Mar. 5, 1861.

H. Wallis, ex-Chief Mechanical Superin-
tendent G.T.R., Montreal, born at Derby,
Eng., Mar. 10, 1844.

D. O. Wood, Western Agent at Toronto for
Robert Reford Co., Steamship Agents, Mon-
treal, born at Kleinburg, Ont., Mar. 16, 1864.

Steam Railway Statistics.—On June 30,
1904, the mileage of steam railways in the
Dominion was 19,611, compared with 19,077
on the same date in 1903, an increase of 534
miles. The miles of railway in operation
numbered 19,431, an increase of 443 over the
previous year. The paid-up capital, includ-
ing Dominion and Provincial subsidies and
loans and municipal aid, was \$1,186,546,918,
an increase of \$39,996,149 over 1903. The
gross earnings of all the steam railways aggre-
gated \$100,219,436, a gain of \$4,154,909.
The working expenses were \$74,563,162, an
increase of \$7,081,63, but the net earnings
show a falling off of \$2,927,729, the total for
the year being \$25,656,274. The railways
carried 23,640,765 passengers, an increase of
1,492,023, and 48,097,519 tons of freight, a
gain of 724,102 tons. Twenty-five passen-
gers were killed, 28 less than in the year
previous.

**The Canadian Railway Club's Annual Din-
ner** was held at the Windsor Hotel, Montreal,
Jan. 26, President S. King, Assistant Master
Car Builder, C.P.R., in the chair. The toasts
were "The Railways," proposed by Second
Vice-President W. D. Robb, Superintendent
of Motive Power, G.T.R., and responded to
by H. H. Vaughan, Superintendent of Motive
Power, C.P.R., and R. Patterson, Master
Mechanic G.T.R., Stratford, Ont.; "Our
Guests," proposed by L. H. Johnson,
Assistant Superintendent Motive Power,
C.P.R., and responded to by Prof. Durley, of
McGill University; R. S. Thomas, of the New
York Railway Club, and J. Temple, of the
Pullman Co.; "The Railway Supply Man,"
proposed by T. McHattie, Master Mechanic,
G.T.R., and responded to by A. Lichtenhein,
of the Galena Signal Oil Co. At the regular
monthly meeting of the Club on Feb. 7, W. S.
Blyth, travelling engineer, Canada Atlantic
Ry., read a paper on locomotive and train
handling. T. McHattie, Master Mechanic
G.T.R., Montreal, was elected a member of
the executive committee, vice J. Powell,
appointed Secretary. At the next meeting,
Mar. 7, A. A. Maver, Master Mechanic G.T.R.,
will read a paper on the hot water heating
system as applied to roundhouses and shops.

Gillies & Co. (Ltd.), at present trading as
a joint stock company under the Dominion
Companies' Act, is applying for an act, at the
current session of the Dominion Parliament,
authorizing an increase of capital, and giving
power to own steamers and carry on a general
navigation business; to engage in the con-
struction of docks, wharves, tramways,
bridges, locomotives, cars, and ships, and to
construct in connection with its works rail-
way sidings, etc., not exceeding ten miles in
length, and to connect the same with any line
of railway; as well as to engage in a number
of other businesses. McGivern and Haydon,
Ottawa, are solicitors for the company.

The Board of Railway Commissioners.

The appointment of A. C. Killam, K.C.,
heretofore a Justice of the Supreme Court, as
Chief Commissioner of the Board of Railway
Commissioners for Canada, was formally
made Feb. 6. He took his seat as Chief
Commissioner Feb. 7, and received the con-
gratulations of M. K. Cowan, K.C., on behalf
of the G.T.R., and C. Drinkwater on behalf
of the C.P.R., on his appointment. Some
matters were attended to, and arrangements
were made by which the Commissioners will
give judgment on cases already heard, upon
the transcript of the notes of evidence and
argument taken at the time, and for the re-
hearing of other applications.

The Commission sat in Toronto, Feb. 16,
and heard arguments upon the application
for the expropriation of the burned-out dis-
trict. An interim order has since been issued,
which is referred to under the heading of
Toronto Union Station, on pg. 95. The
Commissioners subsequently visited Guelph,
to look into the question of the application
of the G.T.R. to take over some park land
there for station purposes; and Hamilton, to
hear evidence in regard to a number of
matters.

Railways and Special Freight Rates.

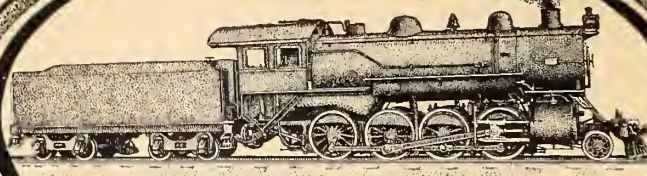
The Board of Railway Commissioners
issued the following orders on Feb. 9, relative
to freight matters:—

Upon the application of the G.T.R. and the
C.P.R. companies, under section 275 of the
Railway Act, for permission to issue special
rate notices, in certain cases, without previ-
ous application to the Board, prescribing tolls
lower than the tolls in force upon the railway,
to be charged for specific shipments between
points upon the railway, not being com-
petitive points, where the said companies,
or either of them, and the Board consider
the charging of the special tolls mentioned in
any such notices will help to create trade or
develop business, or be in the public interest,
and not otherwise contrary to the provisions
of the Act. The application sets forth cer-
tain contingencies which the companies con-
sider they should be allowed to provide for
by special rate notices, and which only are
considered in the order made. The Board
orders that the railway companies, subject
to the act, be authorized to issue special rate
notices under the restrictions prescribed in
section 275, subsection 4, of the Railway
Act, in the following cases, namely: (a) To
provide for the prompt shipment of any
freight which may unexpectedly offer and
for which no suitable tariffs have been pre-
pared, on condition that the filing and pub-
lication of such tariffs be immediately pro-
ceeded with. (b) To provide for the dis-
position of shipments which may have been
forwarded to the wrong destination, or which
may have been refused by the consignees, by
returning them to the original point of ship-
ment at less than the ordinary tariff rate, or
by reforwarding at a reduced rate from the
first to a second destination, in which case the
published rate from the point of shipment to
the first destination, added to the reduced
rate from the first destination to the second,
shall not be less than the published rate for
a through haul from the original shipping
point to the second, or final, destination.
(c) To provide for the carriage of small
sample or trial shipments for testing pur-
poses, with a view to opening up business,
as, for example, a trial shipment of ore
from a new mine to the smelter, at actual
weight at the carload rate. (d) To pro-
vide for the removal of live stock by rail
from exhaustive grazing grounds to new
pastures on the ranches of the Northwest,
for subsequent reshipment to the mar-
kets. Every such special rate notice re-
ferred to above must be filed with the Board,

and shall exist merely for the purpose of giving effect to the special rate charged for the specific shipment mentioned therein. (e) To permit the railway companies to carry such freight as coal and firewood for their own employes at reduced rates, which may be filed individually with the Board, or as a general notice. It is also ordered that special rate notices authorized above shall mention, for the information of the Board, the reason for the issue thereof, and the rates which would have to be charged in the absence of such notices, and that advices of special rates made by the railway companies under the general authority contained in section 275, subsection 3, of the Act, must be filed with the Board.

On the application of the C.P.R. Co. for leave to waive the additional notice necessitated by mailing requirements in order that new special freight tariffs may reach the Board within the time prescribed by section 262, subsection 2, of the Railway Act, by sending telegraphic notices of the proposed changes to the Board: It is ordered that the C.P.R. Co., and any other railway company similarly situated, be authorized, in cases of emergency only, to notify the Board by telegraph of the proposed changes in the rates, provided: (a) That the new schedule be printed and publicly posted for the full period required by the Act, namely, three days in the case of a reduction and 10 days in the case of an advance. (b) That the telegram to the Board plainly state the changes proposed to be made in the rates, the effective date thereof, and the official title of the sender of the telegram. (c) That the new tariff be mailed to the Board not later than the date of publication; and (d) That a copy of the telegram be attached to the printed tariff filed with the Board.

The railway department of the Y.M.C.A., in its report for 1904, shows that 16 entire buildings were set aside for Association purposes, one of which was at Fort Erie, Ont., for G.T.R. and Wabash employes, at a cost of \$6,000. There are now 208 Y.M.C.A.'s for railway men, with a membership of 72,148, and an average daily attendance of 37,419. Looking to the future, new buildings are practically assured at the following points: Portland, Me.; Deering, Me.; East Toronto, Ont.; Fort Gratiot, Mich., on the G.T.R.; and Stellarton, N.S., on the Intercolonial Ry.



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Orders by the Railway Commissioners.

The following orders have been issued by the Board:—

Approving of plans of nine bridges over the Don River between mileage 4.4 and mileage 14.3; bridge over the Seguin River, Parry Sound, Ont.; highway crossing at mileage 29.9; farm crossing at mileage 30; and plans of standard trestles and wooden box and pile culverts for the James Bay Ry. (Jan. 10.)

Approving of the proposed extensions of the C.P.R. sidings in Perth, Ont. (Jan. 10.)

Approving plans for a siding in Goderich, Ont., for the G.T.R. (Jan. 12.)

Approving plans for spur lines 860 ft. and 760 ft. in length respectively, for the C.P.R. in Winnipeg, from points on the Ross Avenue branch to factories. (Jan. 13.)

Authorizing a change in the location of the James Bay Ry. between mileage 8 and mileage 9 from Toronto. (Jan. 13.)

Approving plans for a change in location on the line of the C.P.R., Pheasant Hills branch, between mileage 146.8 and mileage 189.8. (Jan. 14.)

Authorizing the construction of a spur line in Sandwich East, Ont., for the G.T.R. (Jan. 17.)

Sanctioning a by-law of the Ottawa and New York Ry. appointing its General Manager, or such officer as he may designate, to make tariffs of tolls for the company. (Jan. 18.)

Granting permission to the Gordon, N.B., Highway Commissioners to construct a highway across the Tobique branch of the C.P.R., near the Odell River bridge. (Jan. 18.)

Granting permission to the Galt, Ont., city council to lay sewers under the G.T.R. tracks in that city according to plans furnished. (Jan. 19.)

Granting permission to the municipality of St. Andrew's, Man., to construct highways across the West Selkirk branch of the C.P.R. (Jan. 24.)

Sanctioning a by-law of the James Bay Ry., authorizing D. B. Hanna, or such officer of the company as he may designate, to make tariffs of tolls for the company. (Jan. 25.)

Further extending the period within which the Morrissey, Fernie and Michel Ry. may use a crossing of the C.P.R. near Fernie, pending the installation of interlocking and derailling devices. (Jan. 25.)

Authorizing the construction of a spur line in Strathroy, Ont., for the G.T.R. (Jan. 25.)

Authorizing the Tillsonburg, Lake Erie and Pacific Ry. to operate its line under the rules and regulations published in its time table, No. 1. (Feb. 1.)

Approving of plans for a crossing of a highway in Elzevir township, Hastings county, Ont., by the Bay of Quinte Ry. (Feb. 1.)

Approving plans for the construction of a subway on Grand River St., under the G.T.R., and an overhead bridge to carry the railway over John St., Paris, Ont., for the G.T.R. (Feb. 2.)

Port Arthur Industries.—The Atikokan Iron Co. is the title of a new corporation, for which letters patent are being applied for, with a capital of \$1,000,000, for the purpose of mining iron ore, and manufacturing pig iron and other products of iron and steel. The company's mines are at Atikokan, on the Canadian Northern Ry., west of Port Arthur, Ont., and the blast furnaces, rolling mills, etc., will be at Port Arthur. Of the capital, Mackenzie, Mann & Co. take \$400,000, the town of Port Arthur \$200,000, and a number of U.S. capitalists the remaining \$400,000. In connection with this company it is proposed to form the Canadian Coal and Ore Dock Co., to construct coal and ore docks at Port Arthur, at a cost of \$600,000.

Passenger and Freight Tariffs.

Concluded from Feb., pg. 67.

The Boston and Maine Rd., in respect of its Canadian line—The Massawippi Valley Ry.—filed a tariff showing rates between its stations per 100 lbs.; wood products at per carload of 30,000 lbs.; and wood at per cord.

The British Yukon Ry. has had approved a tariff showing the following rates for distances under 5 miles, and for over 85 and under 90 miles.

Class...	1	2	3	4	5	6	7	8	9	10
Cents.	24	21	18	15	12	11	10	11	10	09
Cents.	190	166	142	119	95	90	75	73	73	70

The minimum charge is 50 cents for distances under 35 miles, and \$1 for over 35 and under 80 miles. Subject to Canadian Freight Classification.

Canadian Pacific Ry.—The freight mileage tariff no. 1 applies (local and interchange) between stations on the Lake Superior Division (North Bay and east), the Eastern Division, the Ontario Division and the Atlantic Division; while tariff no. 2 applies between stations on the Lake Superior Division (North Bay and west), also on interchange between stations on the Lake Superior Division (west of North Bay), and stations on the Lake Superior Division (North Bay and east); Eastern Division, Ontario Division and Atlantic Division. The rates are governed by the Canadian Freight Classification, and subject to change upon legal notice, and to the general rules and conditions of carriage adopted by the C.P.R. The rate for distances under five miles is 8c. per 100 lbs. for 1st class, and ranges to 3c. per 100 lbs. for 10th class freight, and is worked out for distances up to 1,000 miles on tariff no. 1, the rates for that distance being \$1.50 for 1st class, and 53c. for 10th class freight per 100 lbs.; while on tariff no. 2 the rates are worked out for distances up to 3,000 miles, the amounts are \$3.70 for 1st class and \$1.15 for 10th class freight per 100 lbs. Local tariffs are also published for traffic on Okanagan Lake, B.C.; for stations between Kirkella, Man., and east on main line, and Port Arthur, Ont., and west, including stations in Manitoba on branch lines; also on interchange between stations in the territory already mentioned and stations east of Port Arthur to Sudbury Jct., Ont.; and between Canmore and east on main line Crow's Nest and east on Crow's Nest line and Fleming, Assa., and west, including stations on branch lines shown in list attached; and on interchange traffic in the territory named and to and from main and branch line stations east of Fleming, Assa. Tariffs are also published for traffic on the Nakusp and Slocan Ry., Kootenay and Arrowhead Ry., Columbia and Kootenay Ry., and Columbia and Western Ry., and supplement to the same; Crow's Nest line, from Crow's Nest to Kootenay Landing, B.C., on interchange to and from Crow's Nest line west of Crow's Nest, and Crow's Nest east of Crow's Nest to Lethbridge, Alta.; also stations on MacLeod and Edmonton branches and other points; between Columbia River landings, between ports on Slocan Lake, between ports on Kootenay Lake and ports on Trout Lake; between stations on the Vancouver and Inland Island Ry., and between stations on the Qu'Appelle, Long Lake and Saskatchewan Ry. The notice referring to the various tariffs states that "with the exception of the tariffs affecting those portions of the company's system in respect to which the company does not require approval (which portions are shown on a map filed with the Board)," they have been approved by the Board.

The Esquimalt and Nanaimo Ry.'s freight tariff as approved gives rates per 100 lbs. for

five miles and under to 80 miles, the rates for the shorter distance being:—

Class...	1	2	3	4	5	6	7	8	9	10
Cents...	16	14	12	9	6	5	5	5	6	4

The G.T.R. gives rates for distances up to 1,000 miles, and adds that the rate for distances beyond 1,000 miles is at the same rate per mile as chargeable for 1,000 miles. The tolls in the table were approved by the Governor-in-Council, June 9, 1900.

The Kingston and Pembroke Ry. states that its charges are subject to the general rules and conditions of carriage adopted by the company.

The standard freight tariffs approved for the Nelson and Fort Sheppard Ry., the Red Mountain Ry., and the Vancouver, Victoria and Eastern Ry. and Navigation Co., lines operated by the Spokane Falls and Northern Ry., a Great Northern Ry. (U.S.) subsidiary, provide for charges per 100 lbs. for 10 miles or less of:

Class..	1	2	3	4	5	6	7	8	9	10
Cents.	21	18	14	11	10	9	8	9	8	6

Minimum charge at first-class rate of not less than 25c., and subject to Canadian Freight Classification.

The Quebec Ry. Light and Power Co. has filed a tariff from stations on its lines to Quebec, rates between stations; also rates for live stock irrespective of distance.

The Quebec Southern Ry. agrees to perform a cartage service at St. Hyacinthe, Que., the additional charge being on 1st to 5th class freight, 1½c. per 100 lbs., subject to a minimum charge of 12c. for any one consignment; and on classes lower than 5th, not less than 2c. per 100 lbs., but the gross rate not to exceed 5th class plus 1½c. per 100 lbs.

A standard freight tariff has been approved, but is not published, for the Temiscouata Ry.

Other freight tariffs published are for the Atlantic and Lake Superior Ry., Bedlington and Nelson Ry., Halifax and Yarmouth Ry., and the Nova Scotia Steel and Coal Co's Ry., which vary slightly from the standards quoted above.

The Intercolonial-Grand Trunk Arbitration.—The questions at issue between the Intercolonial Ry. and the G.T.R., which form the basis of an arbitration now in progress, were recently discussed in the House of Commons. It was stated that the differences between the two railways, in regard to which the arbitrators are taking evidence, have arisen under divers contracts entered into at different times. One of the contracts was entered into in 1899 in connection with the purchase of the line from Riviere du Loup to Point Levis, Que.; another point of difference arose out of the purchase of the extension of the line from Levis to St. Hyacinthe; and others are of more recent date. There were, it was stated, provisions in the contracts providing for a reference to arbitrators of any disputes that might arise thereunder. The Intercolonial Ry. had a number of claims against the G.T.R. arising out of what was claimed to be the non-fulfilment of the contracts, the most important being a very considerable claim made by the Intercolonial Ry. in respect to the diversion by the G.T.R. of freight to Portland, Me., that ought to have been given by it to the Intercolonial to be carried to St. John or Halifax. The arbitrators have been hearing evidence for some considerable time, and the proceedings are likely to last for some time longer.

At the recent annual meeting of the Canadian Transfer Co., Montreal, Lieut.-Col. F. C. Henshaw was re-elected President; H. Paton, C. Cassils, G. R. Starke, and Sir H. M. Allan were re-elected directors, and F. M. McRobie Manager and Secretary.

RAILWAY AND STEAM BOAT **RUBBER GOODS** of the Highest Grade

HOSE

For Air Brakes, Steam, Gas,
Water, Pneumatic Tools,
Fire Protection.



PACKINGS

IN GREAT VARIETY.

Special Valves and Gaskets.
Mats, Matting and Stair
Treads.

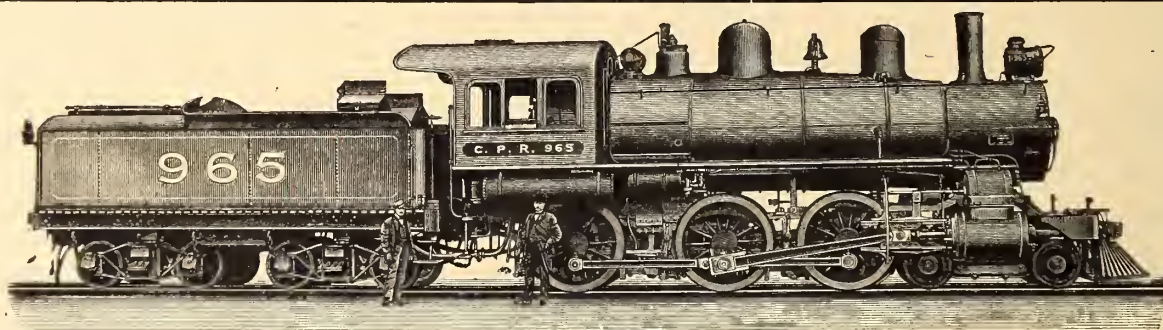
Superior in Quality.

Satisfactory in Service.

MANUFACTURED BY

THE CUTTA PERCHA & RUBBER MFG. CO. OF TORONTO LIMITED

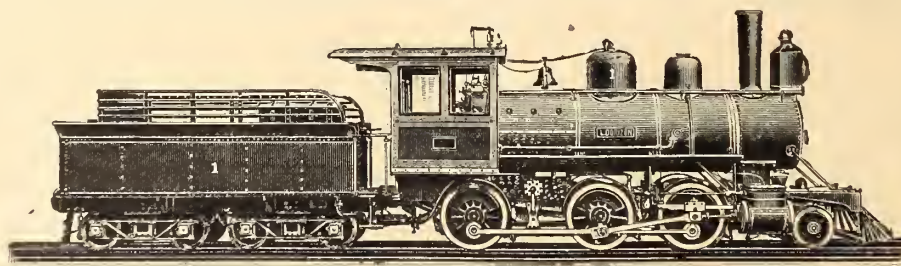
Temporary Offices—15 EAST WELLINGTON ST., TORONTO, CANADA



The Saxon Engine Works, late Rich. Hartmann, Limited
CHEMNITZ (Germany),

Carry on the construction of **LOCOMOTIVES** of every description.

Number
of
Workmen,
5,200.



Capital,
\$3,000,000.

—FOR—
HOISTING
HAULAGE
GUYS,
TRANS-
MISSION
SEMA-
PHORES

WIRE ROPE

IN STOCK—CUT TO ANY LENGTH

—SPECIAL—
BALLAST
CABLES
SWITCH
ROPES
BLOCKS
CLIPS
TURN-
BUCKLES
THIMBLES
ETC.

THE DOMINION WIRE ROPE CO'Y, LTD., MONTREAL

Recent Manitoba Legislation.

The following acts affecting railway and other transportation interests were passed at the recent session of the Manitoba Legislature:—

Authorizing the guarantee of bonds of the Canadian Northern Ry. Co.

Respecting aid to the Canadian Northern Ry. for Winnipeg terminals.

Incorporating the Central Canada Ry. and Power Co.

Confirming and enlarging the powers conferred on the Manitoba Water Power Electrical Co.

Respecting certain debentures issued under the Railway Aid Act, 1885.

Amending the act, incorporating the Riverside Park Ry. Co.

Amending the act incorporating the Winnipeg and St. Andrews Rapids Ry. Co.

Respecting the Winnipeg Electric Ry. Co.

Canadian Ticket Agents' Association.

A meeting of the executive committee was held in Toronto, Feb. 7. Present: W. Jackson, in the chair; C. E. Morgan, E. de la Hooke, W. Bunton, J. P. Hanley, W. H. Harper, W. H. C. MacKay, W. Maughan.

It was decided to hold the next annual meeting at Portland, Me., on Monday, Oct. 9. The various details have been left in the hands of Secretary-Treasurer de la Hooke to arrange. The party will probably assemble in Montreal and leave there early on Saturday, Oct. 7, by the G.T.R. The return trip may possibly be via Maine Central, Boston and Maine and C.P.R., leaving Portland early on Thursday, Oct. 12, for Montreal.

It was decided not to send a representative to the annual meeting of the American Association of General Passenger and Ticket Agents at the City of Mexico on Oct. 17.

C. E. Horning, G.T.R. ticket agent, Toronto, was elected a member of the executive committee to succeed J. W. Ryder, resigned.

Grand Trunk Pacific Ry.—An issue of £1,646,000 of 4% sterling mortgage bonds on account of the construction of the prairie section of the G.T. Pacific Ry.; and of £1,358,000 of 4% sterling mortgage bonds on account of the construction of the branch line from Lake Superior northerly, has been placed on the London market. The bonds are redeemable in 1955. Of the total amount of the issue, £1,300,000 was subscribed for at 99½, and cables of Feb. 22 state that the balance has been taken up at a premium. The bonds are guaranteed by the G.T.R.

G.T.R. St. Clair Tunnel.—For some time past there have been reports to the effect that it had been decided to adopt electricity as a motive power in the St. Clair tunnel, and a U.S. electrical paper went so far as to state that the G.T.R. had placed an order for six electrical locomotives to handle the traffic. The third rail system, it was said, would be adopted, the third rails being placed on the side of the tunnel, instead of beside the tracks, as is usual; whilst the tunnel was to be brilliantly illuminated and the walls whitened, the whole feature to be advertised as an attraction to tourists. We are advised that there must be some mistake about this, as while the matter is under consideration, no decision had been reached as to substituting electricity for steam as a motive power for handling trains through the tunnel. The question of making a change at the tunnel so as to make its operation more safe, has been under the consideration of the Railway Commissioners and G. A. Mountain, the Board's engineer, recently made an inspection of the tunnel and the operation of trains through it. His report has been prepared, but we were informed Feb. 14 that it had not been considered by the Board.

Esquimalt and Nanaimo Railway.

Negotiations have been completed for the purchase of this line by the C.P.R., and application is being made at the current session of the Dominion Parliament for the necessary parliamentary authority to transfer the line. The line is at present owned by the Dunsmuir estate, and was constructed in connection with the development of the collieries at Wellington and Nanaimo. It extends from Victoria to Wellington, on Vancouver Island, B.C., 78 miles, and the company has charter powers to extend the line further along the island coast. Its rolling stock consists of seven locomotives, two palace or drawing-room cars, five first-class cars, four second-class cars, three baggage, mail and express cars, 14 cattle or box freight cars, 42 platform cars, 19 coal or dump cars, four conductors' vans, and 28 tool cars. The company has a capital of \$3,000,000, of which \$2,500,000 is subscribed and paid up. It received \$750,000 by way of subsidy from the Dominion Parliament, and 2,000,000 acres of land from the B.C. Government. Of the land grant there had been sold up to June 30, 1903, 340,479 acres, realizing \$1,443,250. The total cost of the line and its equipment was reported to be \$3,172,715.18, and there is no floating debt. The gross earnings for the year ended June 30, 1903, were: \$270,960.50, and the net earnings \$62,125.54. It carried, during that period, 153,326 passengers and 143,139 tons of freight. The sale to the C.P.R. does not include the land grant.

A Victoria press report states that Mrs. Dunsmuir, mother of Jas. Dunsmuir, President E. and N. Ry., and some other interests concerned in the Dunsmuir estate, have applied to the courts for an injunction to prevent the sale.

A booklet descriptive of the Royal Muskoka Hotel, owned by the Muskoka Lakes Navigation and Hotel Co., has just been issued. It is one of the best illustrated booklets of the kind ever got out in Canada. The illustrations are tinted, and convey in a more attractive way than any letterpress could an idea of the hotel and its surroundings. The G.T.R., which is largely interested in the success of the hotel by reason of a guarantee to the company, is responsible for the issue of the booklet, which was prepared under the direction of H. R. Charlton, Advertising Agent.

The Canadian Westinghouse Co. has received an order for the equipment of a power house for the electrical operation of gold dredging boats on the Yukon rivers. The plan is an entirely new one, and involves many interesting features. A number of Detroit capitalists recently formed the Canadian Klondike Mining Co. A visit was made to the works of the Westinghouse interests at East Pittsburg to ascertain if electrical machinery could be used in the gold mining plant. After considering various plans, it was decided to install a 400 kilowatt turbo-generator in the power house, to be driven by a 600 h.p. Westinghouse-Parsons steam turbine. On the dredge boats will be installed induction motors, aggregating a total of about 500 h.p., and varying in size from 7½ to 100 h.p. The power house will be located at Dawson, and the dredges will operate on the Yukon river and its tributaries. Lines for transmitting power will be strung from the station to the boats, wherever they may be working. Electrical machinery is used very extensively in mining operations, but this plant will be watched with considerable interest, owing to the remoteness of the country and the new field which will be opened.

TRANSPORTATION APPOINTMENTS.

Board of Railway Commissioners.—A. C. Killam, K.C., heretofore one of the Justices of the Supreme Court at Ottawa, has been appointed Chief Railway Commissioner, succeeding Hon. A. G. Blair, resigned.

Canadian Pacific Ry.—W. M. Kirkpatrick, heretofore Assistant General Freight Agent at Vancouver, B.C., has been appointed Export Freight Agent at Montreal, succeeding A. E. Cook, resigned on account of ill-health.

G. E. Hall, heretofore secretary to the Vice-President, has been appointed Assistant General Storekeeper, succeeding J. H. Callahan, appointed General Storekeeper, Eastern Lines.

The position of Supervisor of Weighing, at Montreal, vacant by the appointment of G. E. Graham as Superintendent of Winnipeg terminals, will not be filled for the present, and the work will be carried on under the direction of the Superintendent of Car Service.

J. W. Leonard has been appointed Manager of Construction of the railway between Sudbury and Toronto. For the present his office will be at Toronto.

R. E. Larmour, heretofore Freight Claims Agent Pacific Division, has been appointed Freight Claims Agent, Central and Western Divisions. Office, Winnipeg, Man.

G. E. Graham, heretofore Supervisor of Weighing at Montreal, has been appointed Superintendent of Winnipeg Terminals, in charge of operation and maintenance. The position of Assistant Superintendent of Terminals, heretofore held by J. L. Audrain, has been abolished.

F. Arnold has been appointed General Yardmaster, with jurisdiction over Winnipeg and St. Boniface, Man., yards.

D. G. McKay has been appointed Station Master at Winnipeg. He will have direct control of the switching of passenger trains in passenger coach yard, and at station, and will also have charge of the station and the station staff.

J. McLellan has been appointed local freight agent at Winnipeg. He will have charge of the freight office and sheds, and will be responsible for collection of the revenue for freight and switching service.

P. E. Barry has been appointed Roadmaster. He will be responsible for maintenance of way in the territory included in the Winnipeg terminals.

A. McDonald has been appointed master carpenter. He will be responsible for the maintenance of bridges, buildings and water service in the Winnipeg terminals. The general carpenter shop will be under his charge. Such work as may be required by the Second District and by the Construction Department will be done in this shop.

J. L. Audrain, heretofore Assistant Superintendent of Terminals, Winnipeg, has been appointed Trainmaster Second District, Central Division, succeeding W. Brock, assigned to other service. Office, Winnipeg, Man.

Changes have been made in the lines in charge of the undermentioned Roadmasters in the 2nd district, Central Division: The Tenlon branch has been added to R. M. Binney's district; the Winnipeg Beach branch has been added to C. J. Panser's district; and W. Cooper's district has been extended to one mile west of Rosenfeld Jet.

J. Cardell, heretofore Master Mechanic at Winnipeg, Man., has been appointed Master Mechanic at Calgary, Alta., succeeding S. Phipps, transferred.

S. Phipps, heretofore Master Mechanic at Calgary, Alta., has been appointed Master Mechanic at Revelstoke, B.C., succeeding C. H. Tenple, promoted.

T. J. Conlter, heretofore Assistant Freight Claims Agent, Central and Western Divisions,

has been appointed Freight Claims Agent, Pacific Division. Office, Vancouver, B.C.

Central Vermont Ry.—Jas. Coleman, Master Car Builder, having resigned, A. Buchanan, Jr., heretofore Superintendent of Motive Power, has been appointed Superintendent of Motive Power and Car Department. Office, St. Albans, Vt.

Chicago Great Western Ry.—Thos. Rigdale, heretofore Travelling Freight and Passenger Agent at Montreal, has retired from the company's service, and the office has been discontinued.

Delaware and Hudson Co.—J. W. Burdick, heretofore General Passenger Agent, has been appointed Passenger Traffic Manager. Office, Albany, N.Y.

P. Wadsworth, heretofore General Freight Agent, has been appointed Freight Traffic Manager. Office, Albany, N.Y.

A. A. Heard, heretofore Assistant General Passenger Agent, has been appointed General Passenger Agent, succeeding J. W. Burdick, promoted.

C. E. Rolfe, heretofore Assistant General Freight Agent, has been appointed General Freight Agent, succeeding P. Wadsworth, promoted. Office, Albany, N.Y.

Grand Trunk Ry.—J. Gray, heretofore station agent at St. Catharines, Ont., has been appointed local freight agent at River St., Buffalo, N.Y. He is succeeded at St. Catharines by G. D. Baxter, heretofore station agent at Thorold, Ont.

C. A. Gormaly, heretofore agent Lackawanna and G.T.R. Line at Milwaukee, Wis., has been appointed Commercial Agent G.T.R. at St. Louis, Mo., succeeding F. T. Byrne, resigned.

Great Northern Ry., U.S.—F. A. Nancekiviel, heretofore Soliciting Freight Agent, G.T.R., Hamilton, Ont., has been appointed Soliciting Freight and Passenger Agent, G.N. Ry., Toronto, succeeding J. J. Johnston, promoted.

J. J. Johnston, heretofore Soliciting Freight and Passenger Agent, Toronto has been appointed Contracting Freight Agent at Winnipeg, Man.

Intercolonial Ry.—The position to which C. F. Burns, heretofore Travelling Auditor, has been appointed is chief clerk in the Accounting Department, and not chief clerk in the Treasurer's office, as stated in our last issue.

Jno. Devereau has been appointed mechanical foreman at Campbellton, N.B., succeeding J. A. Johnson.

Michigan Central Rd.—H. B. Ledyard has been appointed Chairman of the Board, succeeding Chauncey M. Depew, and is succeeded as President by W. H. Newman, who is also

NOTICE is hereby given that an application will be made on behalf of the Canadian Pacific Railway Company and the Esquimalt and Nanaimo Railway Company to the Parliament of Canada, at its present session, for an Act ratifying and confirming an agreement between the said companies for the sale by the Esquimalt and Nanaimo Railway Company to the Canadian Pacific Railway Company of the railway and properties in the said agreement described declaring the said railway to be a work for the general advantage of Canada, and authorizing the Canadian Pacific Railway Company to acquire and operate the same and issue bonds, debentures, consolidated debenture stock and other securities to aid in such acquisition, with such other powers as may be necessary and expedient in order to carry out the purposes and objects of the said agreement.

A. R. CREELMAN,
Solicitor for applicants.

Dated this 14th day of February, A.D. 1905.

N. CURRY, President.

N. A. RHODES, Vice-President.

J. M. CURRY, Sec.-Treas.

CAPITAL, \$1,000,000.

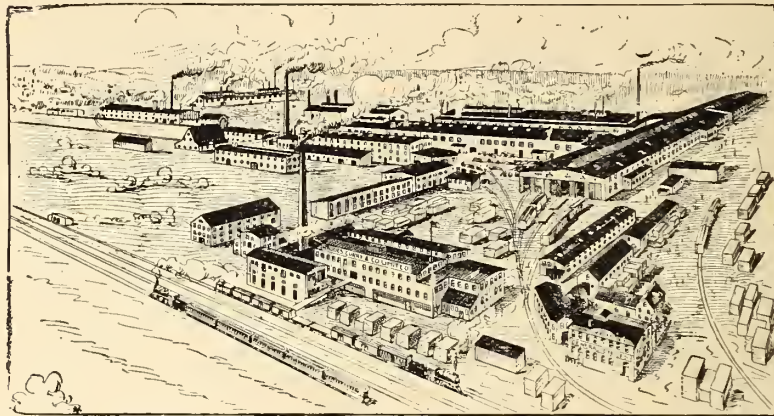
RHODES, CURRY & CO.

AMHERST, NOVA SCOTIA

LIMITED

RAILWAY and STREET CARS

Special Cars for All Purposes.



Car Wheels, Axles, Forgings, Castings, Etc.

CAPACITY PER MONTH

300 Freight Cars	4 Passenger Cars	4 Snow Plows	3,000 Car Wheels
2,500 Car Axles	500 tons Castings	1,000 tons Forgings	

CANADIAN NORTHERN RAILWAY

THE NEW CANADIAN HIGHWAY FROM PORT ARTHUR, THE HEAD OF LAKE SUPERIOR, TO—

**FORT FRANCES
WINNIPEG
PORTAGE LA PRAIRIE
BRANDON**

**MORRIS
EMERSON
CARMAN
HARTNEY**

**GLADSTONE
NEEPAWA
DAUPHIN
SWAN RIVER**

Line surveyed and now under construction to:—

PRINCE ALBERT

BATTLEFORD

EDMONTON

FREIGHT:—Shipments are handled from points in Eastern Canada, either Grand Trunk or Canadian Pacific Railways, via North Bay to Port Arthur, thence Canadian Northern Railway.

PASSENGER:—Passengers destined to points on the Canadian Northern Railway north, south and west of Winnipeg, can purchase through tickets via Chicago and St. Paul, where connection is made with the Canadian Northern Flyer for Winnipeg via Great Northern Railway, also with Northern Pacific Railway.

Freight Rates, Folders and other Information furnished on application to:—

R. H. BELL, T. F. & P. A., Board of Trade,
MONTREAL, QUE.

WM. PHILLIPS, G. E. A.,
TORONTO, ONT.

GEO. H. SHAW, Traffic Manager,
WINNIPEG, MAN.

President of the New York Central Rd. W. C. Brown has been appointed Vice-President in charge of transportation; J. Carstensen, Vice-President in charge of accounts; and G. Y. Grammer Vice-President in charge of traffic. Messrs. Brown and Carstensen are also Third and Fourth Vice-Presidents respectively of the New York Central. Mr. Grammer is General Traffic Manager of the Lake Shore and Michigan Southern Rd.

Thos. Evans, heretofore chief clerk to the freight and passenger agent at London, Ont., has been appointed acting freight and passenger agent, succeeding Jno. Paul, resigned, to enter the service of the New York, St. Catharines and Toronto Ry.

Niagara Navigation Co.—H. E. Weller, who has been in the head office for several years, has been appointed ticket agent, Yonge St. Wharf office, Toronto, succeeding G. H. Doherty, resigned.

W. E. Tibbitts, who has been baggage agent of the company for several years at Yonge St. Wharf, Toronto, has been appointed General Baggage Agent.

Niagara, St. Catharines and Toronto Ry.—Jno. Paul, heretofore freight and passenger agent, Michigan Central Rd., London, Ont., has been appointed General Freight Agent, N., St. C. and T. Ry., succeeding W. N. Warburton, assigned to other duties. Office, St. Catharines, Ont.

Pere Marquette Rd.—M. J. Griffin has been appointed Trainmaster at Detroit, Mich.

F. T. Byrne, heretofore commercial agent Grand Trunk Ry. at St. Louis, Mo., is reported to have been appointed commercial agent P.M. Rd., at the same point.

Quebec Southern Ry.—D. L. Jones has been appointed mechanical foreman, succeeding L. H. Veronneau, resigned. Office, Sorel, Que.

Richelieu and Ontario Navigation Co.—F. Percy Smith, heretofore in the company's passenger department, has been appointed Secretary, succeeding H. Bolger, resigned.

Several changes are about to be made in the traffic department, but they had not been officially announced when this was written. The rumored changes are as follows: R. A. Carter, heretofore Travelling Passenger Agent Canada Atlantic Ry., to be District Freight Agent at Toronto, with jurisdiction over freight matters in Toronto and Hamilton, and over passenger and freight matters east of Toronto to Montreal. H. Dubois, heretofore Travelling Freight and Passenger Agent at Toronto, to be transferred to Montreal, with territory from Montreal east.

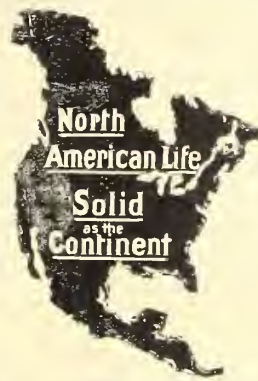
Rutland Rd. and St. Lawrence and Adirondack Rd.—Upon the passing of these lines under the control of the New York Central Rd., the following directors have been appointed:—W. K. and F. W. Vanderbilt, H. K. McK. Twombly, J. P. Morgan, W. Rockefeller, J. Stillman, W. H. Newman, W. S. Webb, C. M. Depew, O. Merrill, P. W. Clement, F. D. Proctor, and Mr. Paine.

A. G. Adams, heretofore Purchasing Agent, has been appointed Treasurer.

Teniskaming and Northern Ontario Ry. Commission.—Robt. Jaffray, Chairman of the Commission, has resigned.

Turbine Steamship Co.—H. W. Wilson, heretofore Assistant to the Manager Northern Navigation Co. at Collingwood, Ont., has been appointed Manager T.S. Co. Office, Hamilton, Ont.

The representatives of the Tug and Dredge Owners' Protective Association of the Great Lakes have signed a contract with representatives of the firemen and linesmen fixing the wages for the season. Wages are fixed at \$65 and board for Chicago, Ill., and South Chicago, \$60 for Cleveland, Ohio, and \$55 at other points.



TWENTY-FOURTH ANNUAL STATEMENT OF THE

North American Life Assurance Co.

HOME OFFICE:

112-118 King Street West, - TORONTO

For the year ended 31st Dec., 1904

Dec. 31, 1903—To Net Ledger Assets..... \$5,376,210 75

RECEIPTS

Dec. 31, 1904—To Cash for premiums... \$1,237,250 16
To Cash on Investments,
etc..... 269,779 64
\$1,507,029 80
\$6,883,240 55

DISBURSEMENTS

Dec. 31, 1904—By payment for Death
Claims, Profits, etc... \$ 561,136 57
—By all other Payments.... 376,741 36
\$ 937,877 93
\$5,945,362 62

ASSETS

Dec. 31, 1904—By Mortgages, etc..... \$ 989,847 47
—By Stocks, Bonds and Debentures (mar-
ket value \$3,539,104.30)..... 3,460,096 75
—By Real Estate, including Company's
Buildings..... 186,603 95
—By Loans on Policies, etc..... 432,420 93
—By Loans on Bonds and Stocks (nearly
all on call)..... 771,604 71
—By Cash in Banks and on hand..... 104,788 81
\$5,945,362 62
—By Premiums outstanding, etc. (less cost
of collection)..... 244,075 91
—By Interest and Rents due and accrued. 11,561 53
\$6,231,000 06

LIABILITIES

Dec. 31, 1904—To Guarantee Fund..... \$ 60,000 00
—To Assurance and Annuity
Reserve Fund..... 5,587,316 59
—To Death Losses Awaiting
Proofs, Contingent
Expenses..... 82,390 00
\$5,729,736 59
Net Surplus..... \$ 501,263 47

Audited and found correct—JOHN N. LAKE, Auditor.

WM. T. STANDEN, Consulting Actuary.

New insurance issued during 1904..... \$6,530,825 00
Being the best year in the history of the Company.

Insurance in force at end of 1904 (net)..... \$35,416,380 00
No monthly or Provident Policies were issued—this branch having been discontinued.

President:

JOHN L. BLAIR.

Vice-Presidents:

JAMES THORBURN, M.D., Medical Director
HON. SIR W. R. MEREDITH, LL.D.

Directors:

HON. SENATOR GOWAN, K.C., LL.D., C.M.G. L. W. SMITH, ESQ., K.C., D.C.I.
E. GURNEY, ESQ. LT. COL. D. McCRAE, Guelph. J. K. OSBORNE, ESQ.

Managing Director:

L. GOLDMAN, A.I.A., F.C.A.

Secretary:

W. B. TAYLOR, B.A., LL.B.

Superintendent of Agencies:

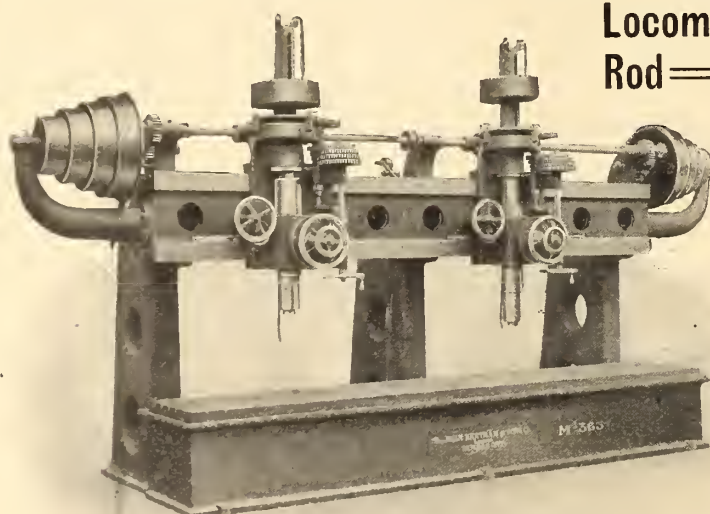
T. G. McCONKEY

The report containing the proceedings of the Annual Meeting, held on January 20th last, showing marked proofs of the continued progress and solid position of the Company, will be sent to policyholders. Pamphlets explanatory of the attractive investment plans of the Company, and a copy of the Annual Report, showing its unexcelled financial position, will be furnished on application to the Home Office or any of the Company's Agencies.



We build all types of Boilers and Engines, both Marine and Stationary, and have no doubt that our Repair and Jobbing work and rates will give satisfaction.

The BERTRAM ENGINE WORKS CO., Limited, Toronto, Canada.



Locomotive
Rod

Boring Machine

Designed for boring connecting rods and other heavy work. Boring spindles are adjustable from 36 to 132 inches between centres and extend 18 inches from the front of housing. Spindles are driven by tangent gearing, giving a smooth motion under heavy cuts. They are counter weighted, having four changes of power and hand feeds, and quick return. Heads are entirely independent, having separate drives from a four step cone placed at either end of the crossrail.

This machine is one of a line of Bertram's locomotive and car shop tools which are attracting world-wide attention for their exceptional capacity, weight and power.

For further particulars, speed records and complete specifications write to

The JOHN BERTRAM & SONS CO.
LIMITED

DUNDAS, Ontario, Canada

JAS. W. PYKE & COMPANY

CANADIAN REPRESENTATIVES

FRIED. KRUPP, ESSEN, GERMANY.

Steel Rails.

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MAINLY ABOUT PEOPLE.

R. A. Weir, cashier of the C.P.R. freight department, Toronto, died Feb. 8, aged 62.

E. A. James, Manager Canadian Northern Ry., Winnipeg, is in Mexico on a two months' holiday.

C. I. de Sola has been appointed Consul for Belgium in Montreal, succeeding the late Jesse Joseph.

O. W. Dodd, of Chicago, Ill., and formerly of Toronto, has won the railway scholarship for three years.

B. W. Folger, General Manager Niagara Navigation Co., has returned to Toronto from a trip to Great Britain.

Hon. H. R. Emmerson, Minister of Railways, was the principal guest at a dinner given by the Reform Club, Montreal, Jan. 29.

S. B. Morris, C.P.R. ticket agent, Rodney, Ont., recently addressed the West Elgin Farmers' Institute on the subject of good roads.

G. McL. Brown, Superintendent C.P.R. Dining, Sleeping and Parlor Cars, Montreal, is reported to have recovered from his recent illness.

J. F. Gillies, who for the past two years has been general agent of the Chicago Great Western Ry. at Winnipeg, Man., has resigned.

J. Doheny, of Doheny and Grant, sub-contractors on the Temiskaming and Northern Ontario Ry., died at North Bay, Ont., Feb. 1.

John Charlton, President Tillsonburg, Lake Erie and Pacific Ry., is reported to have sufficiently recovered his health to be able to leave his bed.

Hon. A. G. Blair, ex-Chief Railway Commissioner, was slightly injured by being thrown out of a sleigh while driving along Bloor st., Toronto, Feb. 18.

W. E. Fowler, Master Car Builder C.P.R., who has been absent from his office on account of ill-health, has returned to Montreal, considerably improved.

G. H. Shaw, Traffic Manager, Canadian Northern Ry., read a paper on foreign trade at the recent meeting of the Grain Growers' Association of Manitoba.

W. McNab, Assistant Engineer G.T.R., Montreal, has been invited to address the engineering students of the University of Chicago, early in March.

J. F. Armour, of Dundas, Ont., and on the Transcontinental Ry. Survey, slipped on the street in Ottawa, Jan. 28, and had one of his feet crushed by an electric car.

Edward Toltz, engineering student with J. A. Jamieson, elevator engineer, Montreal, who died there Feb. 13, was a son of Max Toltz, formerly consulting engineer C.P.R.

R. H. Barrett, one of the engineers on the Montreal, Ottawa and Georgian Bay Canal survey, fell out of a lodging-house window on York St., Toronto, Jan. 29, and was killed.

T. E. Boddy, who has resigned his position as C.P.R. town ticket and telegraph agent at Peterboro', Ont., after 18 years' service, will in future reside at Streetsville, Ont.

Thos. Cote, formerly connected with the census bureau at Ottawa, press reports state, will be the Secretary of the Canadian section of the International Waterways Commission.

W. Mackenzie, President Canadian Northern Ry., has promised to contribute \$1,200 a year for the support of an assistant professor at Queen's University, Kingston, Ont.

Jos. Walton, for many years in the G.T.R. shops at Point St. Charles, Montreal, died there Feb. 2. A son is secretary to M. S. Blaiklock, Superintendent Eastern Division G.T.R.

A. E. Cook, Export Freight Agent C.P.R., Montreal, was stricken with paralysis while

in his office recently. Although he is reported to be better, he has resigned from the service.

C. M. Hays, Second Vice-President and General Manager G.T.R., was the principal speaker at a meeting of the Canada Club, Montreal, Feb. 24, his subject being the Grand Trunk Pacific Ry.

F. W. Peters, Assistant Freight Traffic Manager, C.P.R., Western Lines, Winnipeg, are one of the applicants to the Manitoba Legislature for an act incorporating the St. Charles Country Club.

W. Woollatt, was presented with a cabinet of silver by the employees of the Buffalo Division of the Pere Marquette Rd., on the occasion of his leaving Walkerville, Ont., recently for the Northwest.

Jas. R. Mosse, M.I.C.E., who died in Tunbridge Wells, Eng., recently, leaving an estate valued at £44,977 gross, bequeathed his engineering and other professional books to King's College, Windsor, N.S.

J. R. Marlowe, Manager of the Transportation Department of the Canadian Manufacturers' Association, Toronto, recently addressed the Hamilton branch of the Association on transportation problems.



J. R. MARLOWE,

Manager Transportation Department Canadian Manufacturers' Association.

G. H. Webster, who recently resigned his position as Division Engineer C.P.R. at Vancouver, B.C., has joined the British Columbia General Contract Co. (Ltd.) at Vancouver, B.C., as President and Engineer.

The stores of C. Stephens Co., Collingwood, Ont., of which C. E. Stephens, Secretary-Treasurer Northern Navigation Co., is principal owner, were damaged by fire to the extent of about \$40,000, Feb. 10.

I. D. Purkis, who died at Prescott, Ont., Feb. 9, was at one time Manager of the Dominion Telegraph Co., but for some years past has been connected with the C.P.R. Car and Passenger Ferry Co. at Prescott.

J. W. Ryder, heretofore city passenger and ticket agent, G.T.R., Toronto, has been appointed Manager for Ontario for the Provident Savings and Life Assurance Society of New York, with headquarters at Toronto.

R. A. Ross, electrical engineer, has resigned his position on the Ontario Power Commission, and is succeeded by Professor R. A. Fessenden, a Canadian electrical engineer now located in Washington, D.C.

Jno. Paul was presented with an easy chair by the Michigan Central Rd. employees at London, Ont., on leaving recently for St. Catharines, Ont., to act as General Freight Agent, Niagara, St. Catharines and Toronto Ry.

C. H. Temple was given a gold-headed cane and set of pipes by residents of Revelstoke, B.C., on giving up his position as C.P.R. Master Mechanic there recently to take up a similar position at Winnipeg with the same company.

E. W. Rathbun, President Bay of Quinte Ry., Thousand Islands Ry., Oshawa Ry., Deseronto Navigation Co., and of the other Rathbun companies, has been elected to represent East Hastings in the Ontario Legislature.

Lord Mount Stephen, ex-President of the C.P.R., has been invested with the insignia of the Grand Cross of the Royal Victorian Order, in recognition of his recent donation of £200,000 to the King's Hospital Fund, London, Eng.

D. B. Hanna, Third Vice-President Canadian Northern Ry., left Toronto, Feb. 6, and sailed from New York on the Teutonic to join W. Mackenzie, President C.N. Ry., in London, Eng. They are both expected back in Toronto during March.

C. D. Edwards, who died at Stoughton, Mass., recently, aged 64, was father of H. O. Edwards, of the Canadian General Electric Co., Toronto. He was the pioneer safe manufacturer in Canada, having carried on business in Montreal for a number of years.

W. Harder, who was the first District Freight Agent of the C.P.R. at Winnipeg in 1881, and is now General Agent Freight Department, Great Northern Ry., at Portland, Oregon, has been elected Treasurer of the Canadian Club recently organized there.

Lt.-Col. J. S. Hendrie, railway contractor, and a director of the Northern Navigation Co. of Ontario, was re-elected to represent West Hamilton in the Ontario Legislature, and was subsequently appointed a member of the Executive Council, without portfolio.

Senator Fulford, C.P.R. ticket agent at Brockville, Ont., and Mrs. Fulford, celebrated the 25th anniversary of their wedding recently, and in connection with that event the Senator gave \$10,000 to the Brockville General Hospital for the erection of a Nurses' Home.

Jas. Poustie, who died in Montreal, Feb. 16, aged 80, entered the service of the Montreal Telegraph Co. in its early days, and for a number of years was Superintendent of Construction for the Great North-Western Telegraph Co., from which position he retired in 1888.

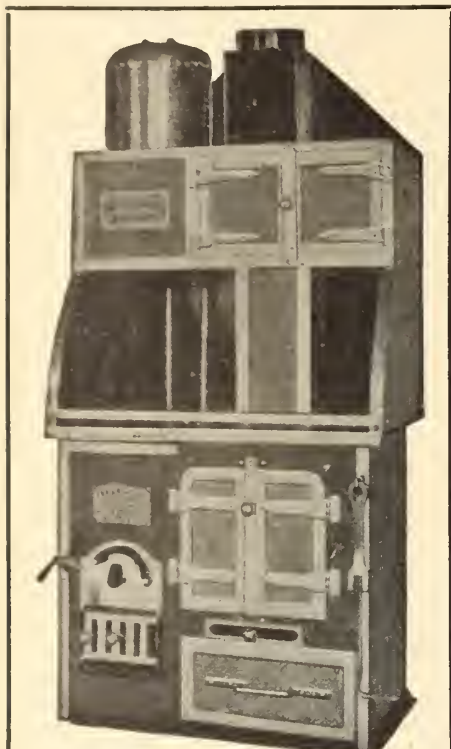
The Montreal Gazette of a recent date said: "Hon. Thos. Long, of Collingwood, is a guest at the Windsor." If Mr. Long will pay over to the Northern Navigation Co. the \$80,000 promised by the late J. J. Long, the shareholders will not be likely to object to "Hon." being prefixed to his name.

M. H. Fitzpatrick, of New Glasgow, N.S., who died in London, Eng., Feb. 16, was one of the promoters of the Nova Scotia Eastern Ry., and had been in London for some months endeavoring to interest financiers in the project. He had also been associated with the construction of the Midland Ry. of Nova Scotia.

G. D. Ellis, formerly with the Northern Navigation Co. at Sarnia, Ont., and during 1904 Manager Turbine Steamship Co. at Hamilton, Ont., died in New York early in Feb., as the result of injuries received by a fall on the slippery sidewalk there. Since Dec., 1904, he had been in the employ of the American Express Co., in New York.

F. Percy Smith, who has been appointed Secretary of the Richelieu and Ontario Navigation Co., was born at Montreal, Dec. 23, 1873, and entered railway service with the C.P.R. in 1886, in the passenger department, remaining there until 1893, when he was appointed to the passenger department of the Richelieu and Ontario Navigation Co.

J. H. Callaghan, who has been appointed General Storekeeper C.P.R., Eastern Lines, at Montreal, was born at Shorncliffe, Kent, England, April 20, 1864, and entered railway



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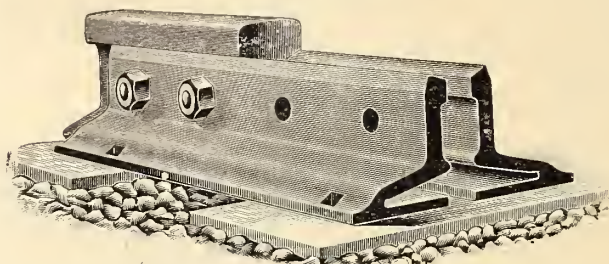
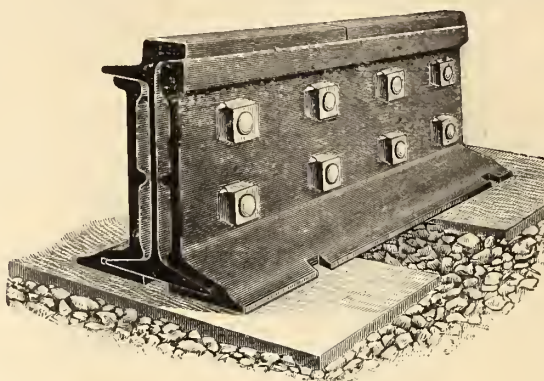
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service Jan., 1886, at Montreal, as clerk in the C.P.R., since which he has been storekeeper at various points on Eastern Lines, Stores Inspector and Assistant Storekeeper, entire service with C.P.R.

W. Askin, of the Montreal and Lake Superior Line, Montreal, has obtained judgment against G. Andrew, a partner in the former banking firm of Andrew and Howarth, Oakville, Ont., for \$1,038 deposited by his late father; but failed in his action in respect of \$700 said to have been deposited with the other partner in the bank.

W. F. Robinson, who has been director of the Kilties' Band, of Belleville, Ont., has resigned and returned from England, where the band is touring, as he found the strain of conducting two performances a day too great. He was accompanied by Mrs. Robinson, and they are the guests of her father, C. E. Morgan, Hamilton, Ont., President of the Canadian Ticket Agents' Association.

H. J. Pettypiece, C.P.R. ticket agent, Forest, Ont., and Jno. Brown, C.P.R. ticket agent, Stratford, Ont., who represented East Lambton and North Perth respectively in the last Ontario Legislature, were the defeated Liberal candidates for the same constituencies at the recent general election. Another defeated candidate was F. G. Rumball, President South-Western Traction Co., at London, Ont.

L. O. Genest, who has been appointed General Storekeeper C.P.R. Western Lines, was born at St. Henri, Levis county, Que., Feb. 16, 1856, and entered railway service in the C.P.R. stores department at Winnipeg, May 4, 1882, as a laborer, his record being: June to Sept., 1882, delivery clerk; Sept., 1882, to Mar., 1883, receiving clerk; Mar., 1883, to Mar., 1885, store foreman; Mar., 1885, to Oct., 1892, assistant storekeeper; Oct., 1892, to Jan., 1905, storekeeper.

E. E. Cain, who was recently appointed Trainmaster Pere Marquette Rd., at St. Thomas, Ont., was born at Dublin, Ind., Feb. 14, 1867, and entered railway service in 1887, as an operator, since which he acted as brakeman, operator, agent, chief clerk to Superintendent of Transportation, Chief Dispatcher and Trainmaster, his service having been with the various lines of the Gould system, including the Wabash Rd., Missouri Pacific Rd., Cotton Belt and Northern Rd., Texas Pacific Rd., with the exception of 18 months with the Denver, Rio Grande and Santa Fe Roads.

J. R. Gilhula, who has been appointed Chief Dispatcher, Pere Marquette Rd., at St. Thomas, Ont., was born at Chatham, Ont., May 27, 1865; entered railway service 1880, with the Canada Southern Ry., serving successively as operator, agent and train dispatcher until 1887, since which his record has been: 1887 to 1903, Missouri Pacific Ry., as telegraph operator, train dispatcher, Chief Dispatcher, and clerk in the office of the Superintendent of Transportation; 1903 to 1904, Chicago, Rock Island and Pacific Rd., as Trainmaster; 1904 to 1905, Wabash Rd., at Decatur, Ill.

G. E. Burns, who has been appointed Freight Claim Agent, C.P.R., Eastern Lines, was born at St. Thomas, Ont., Oct. 6, 1863, and was a law student from 1880 to 1885, when he entered railway service, his record being: 1886, freight department Michigan Central Rd., St. Thomas, Ont.; 1887, to May, 1889, general audit office New York Central and Hudson River Ry., New York city; May, 1889, to May, 1891, travelling auditor C.P.R. at Toronto; May, 1891, to Oct., 1899, chief travelling auditor, C.P.R., at Montreal; Oct., 1899, to Jan., 1905, chief of special service, C.P.R., at Montreal.

Jos. Price, who died in London, Eng., Feb., as the result of a paralytic seizure, was a director of the G.T.R., and President of the

English Association of American Bond and Shareholders, an organization established in London to look after the interests of British investors in railway securities in America. He commenced his railway career on the old Manchester, Sheffield and Lincoln Ry., now the Grand Central Ry., and in 1859 was appointed Treasurer of the Chicago and Alton Rd., at Chicago, Ill., which position he held until 1864, when he was appointed Treasurer of the Great Western Ry. of Canada at Hamilton, Ont. He was subsequently appointed General Manager, resigning in 1875 to return to England. He subsequently became President of the English Association of American Bond and Shareholders, and in that capacity retained his interest in U.S. and Canadian railways. He was active in the fight for control of the G.T.R., which resulted in the election of Sir C. Rivers Wilson to the Presidency in 1895. He was then appointed Vice-President, a position he resigned about a year ago on account of ill-health. He was at one time Vice-President of the New York, Ontario and Western Rd.

C. E. Cartwright, who has been appointed Division Engineer Pacific Division C.P.R. at Vancouver, was born at Toronto, Oct. 14, 1864, but spent his earlier years at Kingston, Ont., and graduated at the Royal Military College there, June, 1884. He entered railway service in 1883, his subsequent record being: 1883, chainman on location Great American and European Short Line, Nova Scotia; Oct., 1885, to July, 1888, location and construction Pontiac and Pacific Junction Ry. and Gatineau Valley Ry.; July, 1888, to Mar., 1890, draughtsman Norfolk and Carolina Ry. and in charge of survey for Belt Line Ry., Norfolk, Va.; Mar., 1890, to Nov., 1892, in private practice; Nov., 1892, to July, 1896, in charge of preparation of right of way maps and changes of grade and alignment for Division Engineer, Peoria division, Terra Haute and Indianapolis Rd.; Oct., 1896, to April, 1897, topographer and draughtsman through Adirondacks for New York and Ottawa Ry.; April, 1897, to Jan., 1899, assistant Chief Engineer New York and Ottawa Ry., Cornwall, Ont.; April, 1899, to Sept., 1899, resident engineer C.P.R. Kamloops and Laggan branches; Oct., 1899, to April, 1902, engineer of construction Vancouver and Lulu Island Ry.; April, 1902, to Jan., 1905, assistant to Division Engineer C.P.R. at Vancouver B.C. For a short time in 1903 he was acting division engineer, from the date of the resignation of F. F. Busted, to the appointment of G. H. Webster.

ELECTRIC RAILWAYS.

Toronto Railway Co.'s Report.

The report for the year ended Dec. 31, 1904, presented at the 13th annual meeting, held Jan. 18, contained the following:— The gross earnings were \$2,444,534.24, which, when compared with the previous year's earnings, \$2,172,087.85, shows the very satisfactory increase of \$272,446.39, or 12.5%. The net earnings were \$1,020,354.70, out of which, after payment of four quarterly dividends of 1½%, amounting to \$334,009.70, and the percentage on earnings due the city, as well as the interest on bonds and loans, there remains a surplus of \$218,078.89. There was expended on capital account \$804,779.48. The directors, in making this expenditure, recognized the rapid growth of the city and the necessity of extensive additions to its power plant, rolling stock and other property. The storage battery in course of completion at the time of the last report has been in operation for some time and is giving excellent results. Large expenditures have been charged for renewals. These have been made principally to the steam plant and

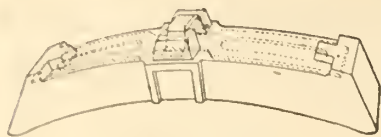
tracks, and have been necessitated by the growing traffic, and are charged against contingent account. To meet additional renewals as required from time to time there has been transferred from profit and loss account \$200,000 to the credit of contingent account. The plant, rolling stock, equipments and other properties have been maintained in the highest state of efficiency. In June, 1904, an agreement was made with the employees providing for an increase in wages, which has necessarily increased the operating expenses for the year as compared with 1903. The agreement made with the employees stipulates that the schedule of wages now in force shall continue for three years, from June 16, 1904. In pursuance of the authority given by the shareholders at a meeting held June 20, 1904, your directors acquired the system of the Toronto and York Radial Ry. Co., which is a consolidation of the Metropolitan Ry. Co.; the Toronto and Scarboro Electric Ry., Light and Power Co.; and the Toronto and Mimico Ry. and Light Co. The directors of the Radial Co. are proceeding with extensions and improvements of its system of railways, in order to establish railway service between Toronto and the surrounding country; and, from the experience of the several months of operation of these lines, believe that the working out of this radial railway undertaking will not only establish the propriety of the investment on behalf of the shareholders, but will prove of great benefit to the city and neighboring counties. The city of Toronto received from the company under the terms of the franchise \$347,609.85, as compared with \$298,839.00 the previous year.

	1904	1903
Passengers carried.....	60,127,460	53,055,322
Transfers.....	20,480,270	18,654,344
Percentage of operating expenses.....	58.2%	55.2%

GENERAL BALANCE SHEET.

ASSETS.	
Road and Equipment, real estate and buildings including pavements and suburban lines.....	\$12,178,646.36
Stores in hand.....	162,307.14
Accounts receivable.....	169,779.66
Cash in bank.....	\$156,096.64
Cash in hand.....	12,536.03
	168,632.67
	\$12,679,365.83
LIABILITIES.	
Capital stock.....	\$7,000,000.00
Bonds—4½% sterling.....	\$2,030,373.33
4½% currency.....	983,000.00
6% debenture.....	600,000.00
	3,613,373.33
Mortgages.....	70,375.00
Accounts and wages payable.....	145,116.13
Accrued interest on bonds.....	63,200.59
Unredeemed tickets.....	22,175.79
Injuries and damages insurance fund.....	3,492.41
Dividend payable Jan. 3, 1905.....	86,509.70
Contingent account.....	202,907.81
Profit and loss Dec. 31 1903.....	\$1,454,136.18
Balance Surplus Dec. 31 1904.....	18,078.89
	1,472,215.07
	\$12,679,365.83

The Canadian Street Railway Association's quarterly meeting will be held at the Russell House, Ottawa, Mar. 7, at 10 a.m., when the following papers will be read: Transportation of Mails, C. E. A. Carr, General Manager London St. Ry.; Commutation Tickets, Employees' Benefits, W. C. Hawkins, General Manager Hamilton Cataract Power, Light and Traction Co.; Collection of Freight, System of Relief Men, as Practised in the United States, E. F. Seixas, General Manager Niagara, St. Catharines and Toronto Ry.; Employees' Insurance, W. G. Ross; Sunday Legislation in Ontario as Affecting Electric Railways, S. Ritter Ickes, Treasurer, Grand Valley Ry.; W. H. Moore, Assistant to the President Toronto Ry., will give an account of his recent inspection of electric railway lines in the U.S.



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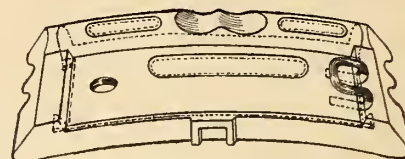
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Ottawa Electric Ry. Co.'s Report.

The report for the year ended Dec. 31, 1904, presented at the annual meeting of shareholders, Jan. 30, showed gross receipts \$384,939.64, and net earnings \$139,097.70. The net earnings were disposed of as follows: Interest on bonds, \$20,000; four quarterly dividends of 2%, \$79,456; mileage, \$9,999.04; contingent account for track renewal and car equipment repairs, \$26,000; carried to profit and loss account, \$3,642.66. The amount at the credit of profit and loss is now \$147,723.80. The work of replacing the old 40 and 42 lb. rails with new 80 lb. rails was continued throughout the past summer. Elgin and Archibald streets were double-tracked from Sparks St. to the swing bridge, and Dalhousie and St. Patrick streets from Rideau to King street. The expenditure for these betterments amounted to \$54,926.54. A motor generator set of a capacity of 1,300 h.p., installed in a new power house built on a lot owned by the company on Middle St., is giving satisfactory results. This equipment furnishes an additional power house capable of operating the road, and can be supplied with motive power from outside sources. Last winter the company experienced the worst snow storms since the opening of the road, the snow clearing amounting to \$20,186 for the year, an increase over 1903 of \$5,701. The company's park at Britannia-on-the-Bay has been added to by the purchase of 42 acres from the estate of the late Judge Mosgrove. Owing to the large increase of summer travel 12 new open cars have been ordered. These will be ready and fully equipped for the opening of next season's business. The company's tracks and equipment are now in better shape than at any time since the beginning of the company's operations. The directors sincerely regret the death of one of their number, A. Lumsden, whose counsels were of great value to the company.

ASSETS.

Roadbed and equipment, water power property and plant, real estate and buildings.....	\$1,718,759.28
Stores.....	3,539.15
Accounts receivable.....	6,012.50
Discount unearned.....	2,136.67
Cash.....	6,398.04
	\$1,736,845.64

LIABILITIES.

Capital stock.....	\$995,700.00
First mortgage bonds, 4%.....	500,000.00
Dividend, Jan. 2, 1905.....	19,864.00
Interest on bonds, Jan. 5, 1905.....	10,000.00
Unpaid dividends.....	404.67
Accounts payable.....	2,996.99
Sovereign Bank of Canada.....	34,156.18
Contingent account.....	26,000.00
Profit and loss.....	147,723.80
	\$1,736,845.64

Passengers carried, 8,717,203; percentage of operating expenses to receipts, 62%, against 7,911,718 and 61% for 1903.

Following are the officers and directors for the current year: President, T. Ahearn; Vice-President, P. Whelan; other directors: W. Y. Soper, G. P. Brophy, Hon. G. A. Cox, F. Workman; Secretary-Treasurer, J. D. Fraser.

London Street Ry. Co.'s Report.

The following are extracts from the report for the year ended Dec. 31, 1904: Gross earnings were \$189,017.67, as compared with \$172,084.53. Operating expenses were \$122,673.71, as compared with \$109,493.15, due principally to the severe weather experienced during last winter, the floods of early spring, and to the extraordinary expenditure on maintenance of property and equipment. An agreement was entered into with the city whereby the suits that had been before the courts for some years were settled. The company agreed to re-lay the tracks on Rectory St. by May 1, 1904; build a new line along South St. by Oct. 20, 1904—both of which have been completed and are now in

operation—and to extend its tracks on the Hamilton Road as far as Egerton St., and build a line in London South, on Wortley Road, to meet the Southwestern Traction Company's tracks on or before Nov. 1, 1905. For the purpose of building the extensions above referred to, and to take care of the back overdraft, due to the purchase of equipment last year, the subscribed capital stock of the company was increased by \$50,000, and the bonded indebtedness by a like amount. On the additional capital subscribed a call of 20% was made, so that the total paid-up capital is now \$460,000. It is gratifying to note the steady increase in the earnings per car mile, as will be seen by comparison for the years 1901-2-3-4, the earnings in cents per car mile for the respective years being 11.54, 12.61, 13.38, and 15.24.

ASSETS.

Cash account.....	\$ 21,664.20
Accounts receivable.....	208.76
Suspense account.....	1,355.68
Stores account.....	16,782.17
Uniform account.....	1,266.93
Road and equipment.....	957,433.26
	\$998,711.00

LIABILITIES.

Capital stock.....	\$160,000.00
Bond account.....	500,000.00
Ticket account.....	322.27
Accounts payable.....	24,359.01
Profit and loss.....	14,029.72
	\$998,711.00



ALLAN H. ROYCE.

Vice President Toronto Suburban Ry., and Secretary Treasurer Canadian Street Ry. Association.

	1904	1903
Passengers carried.....	4,531,776	4,305,975
Car mileage.....	1,180,378	1,286,263
Transfers.....	764,857	741,481
Percentage of operating expenses to earnings.....	68.1	63.0

The officers and directors for the current year are: President, A. Everett, Cleveland, Ohio; Vice-President, T. H. Smallman, London, Ont.; other directors: C. W. Wason, E. W. Moore, Cleveland, Ohio; H. S. Holt, Montreal; P. W. D. Brodrick, W. M. Spencer, London, Ont.; General Manager and Secretary-Treasurer, C. E. A. Carr.

Monterey Railway, Light and Power Co.

W. Mackenzie, of Toronto, and H. S. Holt, of Montreal, have purchased the two mule car lines in Monterey, Mexico, and its environs, one of which was owned by F. S. Slayden, of New York, the other being owned locally. They have obtained from the Governor of the State a 99-year franchise for the operation of an electric railway system, and will proceed as quickly as possible to electrify the present mule lines and to build extensions.

The negotiations in the matter were carried through by W. Laidlaw, K.C., of Toronto, who is now in Monterey, accompanied by E. H. Keating, C.E., ex-General Manager of the Toronto Ry., who will probably have charge of the conversion and extension of the system.

On Feb. 16, Dominion Letters Patent were issued, incorporating W. Mackenzie, W. Laidlaw, Z. A. Lash, A. W. Mackenzie, of Toronto, and H. S. Holt, of Montreal, as Monterey Electric and Gas Co., Ltd., with a capital of \$3,000,000, and the chief place of business at Toronto. The enumeration of the powers of the company, which are very extensive, occupy a page of the Canada Gazette. A bill has been introduced in the House of Commons to change the name of the company to Monterey Railway, Light and Power Co., Ltd., and to confer additional powers on it, particularly in regard to the construction and operation of railways, telegraph and telephone lines.

Monterey, which is the capital of the State of Nuevo Leon, lies 1,600 ft. above the sea, on a sub-tributary of the Nuevo Laredo, 190 miles west-south-west of Matamoras, 167 miles southeast of Laredo on the U.S. frontier, and 675 miles from the City of Mexico by railway. It is a handsome, well-planned and progressive city with a cathedral and a number of good public buildings. In commercial activity it is the most important place in the northern part of the republic. It has important manufactories, foundries, saw mills and flour mills. It is one of the principal stations on the railway opened in 1882 between the City of Mexico and the U.S. frontier at Nuevo Laredo, the Mexican National Ry., and of the Monterey and Gulf of Mexico Ry., terminating at Matamoras, on the Gulf, and now operated as part of the National Lines of Mexico. The city was founded in 1596, became a bishopric in 1777, and was captured by the U.S. forces under General Taylor in 1846. Its population in 1900 was 56,326. The State of Nuevo Leon had a population of 326,940 in 1900, and in 1899 its agricultural products were valued at \$5,000,000; its live stock at \$6,000,000, and the total value of its mercantile movement at \$15,000,000.

Projects, Construction and Betterments.

Brantford and Hamilton Ry. By an order-in-council passed Jan. 16, the act, passed last session of the Dominion Parliament, incorporating the B. and H. Ry. Co. was brought into effect. The incorporators were identified with the Grand Valley Ry. interests, and power was given them to construct an electric railway between Brantford and Hamilton, Ont. The application was opposed on behalf of the holders of the charter of the Hamilton, Ancaster and Brantford Ry., who stated that they were prepared to proceed with construction at once, and would have five miles in operation before winter. A section was added to the act providing that it should not be brought into force if the H., A. and B. Ry. constructed the five miles by the end of Oct., 1904. The line has not been constructed, and the order in council bringing the act into force has been issued. The charter has been acquired by C. D. Haines and his associates, who recently took in hand the reconstruction of the H., A. and B. Ry. Co. (Dec., 1904, pg. 121.)

See Hamilton, Ancaster and Brantford Ry. **Brantford Street Ry.** We are advised that it is intended to lay about half a mile of additional track in Brantford, Ont., during the current year. (Nov., 1904, pg. 105.)

British Columbia Electric Ry. A traffic arrangement has been completed with the C.P.R. by which the Vancouver and Lulu Island Ry., which extends from Vancouver to Steveston, B.C., 16.0 miles, will be electrified, and will be operated by the B.C.E. Ry. after

July 1, as an electric railway. The line has hitherto been operated entirely as a steam line, and its electrification will affect mainly the passenger traffic. (Feb., pg. 71.)

Guelph Radial Ry.—Application will be made next session of the Ontario Legislature for the confirmation of a by-law of the Guelph, Ont., City Council, providing for the extension and improvement of the G.R. Ry.,

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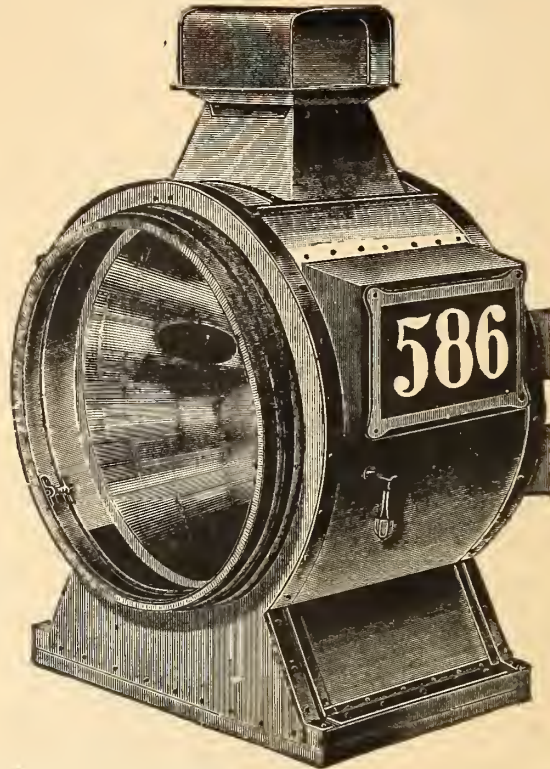
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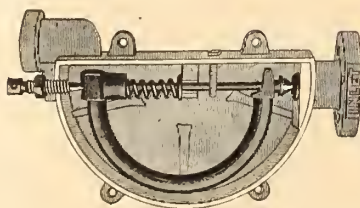
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and to provide for the issue of debentures for \$30,000 for that purpose. It also asks for the revival of the powers conferred in 1903 for the construction of a branch line to Pushinch lake and Berlin, and other branches, and for other purposes. (Oct., 1903, pg. 341.)

Hamilton, Ancaster and Brantford Ry.—The company has acquired the charter of the Brantford and Hamilton Ry., so that the conflicting interests in the route have been harmonized. It can now proceed either under the Provincial or the Dominion charter, or under both. The negotiations with the Hamilton City Council for an independent entrance have been concluded favorably to the company. The gradient up the mountain will not exceed 2½%. The right of way acquired is 66 ft. wide, and there will be only a short length of the public roads run over. It is intended to construct a first-class line, and to use 70-lb. rails. The company also owns the charter of the Hamilton, Galt and Berlin Ry., which was incorporated by the Dominion Parliament in 1903 to construct a railway from Hamilton to Galt and Berlin. (Feb., pg. 71.)

See also Brantford and Hamilton Electric Ry.

Lake Achigan Electric Ry.—J. W. Molson, A. B. Cruchet, and J. Brosseau will apply next session of the Quebec Legislature for an act incorporating a company with this title to construct an electric railway from St. Jerome and Lake Achigan, through the parishes of St. Jerome, Shawbridge and Hippolite; also between the same terminal points through the parishes of St. Jerome, Ste. Sophie and New Glasgow, Que.

London Street Ry.—Application will be made next session of the Ontario Legislature for an act confirming certain by-laws affecting agreements between the company and the city council. The company is negotiating with the council in respect to double-tracking some of the lines.

Longueuil Street Ry.—J. Girouard, J. Riendeau, V. Pigeon, O. Dufresne, H. Cinq-Mars, Z. Ste. Marie, L. Trudeau, S. Labonte, E. Pigeon and I. Lamarre, will apply next session of the Quebec Legislature for an act incorporating a company with this title to construct a street railway in Longueuil, to be extended later on to Montreal South, St. Lambert, Boucherville, Chambly, St. Hubert, Beloeil, Varennes and other adjacent villages.

Montreal and Southern Counties Ry.—The Dominion Parliament will be asked for an act extending the time within which the projected electric line from Montreal through the southern counties generally may be commenced and completed; also for power to extend its line into Montreal, to increase its capital stock and acquire the Montreal and South Shore Auto Car Co. Smith, Markey, Montgomery and Skinner, Montreal, are solicitors for the company. (Aug., 1903, pg. 269.)

Montreal Park and Island Ry.—In connection with the application for an extension of time, at the current session of the Dominion Parliament, for the completion of the company's lines, a petition has been presented setting forth that the requirements of the districts served call for the construction of additional lines. (Feb., pg. 71.)

Niagara, St. Catharines and Toronto Ry.—The question of extending the line from St. Catharines, Ont., to a point near Vine-land, about 4 miles, where connection would be made with the Hamilton, Grimsby and Beamsville Ry., is again under discussion. This extension has been under consideration for some considerable time, and negotiations were carried on between the H., G. and B. Ry. and St. Catharines City Council, but differences arose about the cost of building the bridge, and nothing was done. (Feb., pg. 73.)

Ottawa River Ry.—Press reports state that a contract has been let to M. P. McGrath, of Easton, Pa., for the construction of the line between Montreal and Ottawa. The company has power to construct lines to Georgian Bay, and it is proposed to use steam for the through traffic, and electricity for city and suburban traffic. (Dec., 1904, pg. 429.)

Riverside Park Ry.—The Manitoba Legislature, at its last session, passed an act extending for three years the time within which the company's projected line from Winnipeg to Riverside Park may be commenced, and for ten years the time within which it may be completed. The act also provides that steam may be used as a motive power, and gives the company power to sell or lease its lines to any other company, subject to the prior right of the Government of Manitoba to buy it. (Feb., pg. 73.)

St. John Ry.—An order has been placed with the Canadian General Electric Co. for a 600 Watt generator, for delivery in April. This, together with a 900 h.p. steam engine, will be installed in the power house at St. John, N.B., for reserve power purposes. (June, 1904, pg. 189.)

Southwestern Traction Co.—The power house at Chelsea Green, near London, Ont., was expected to be completed by the end of Feb. The site for the car barn has been laid out, and construction is in progress.

The additional lines which it is proposed to construct, and for which a contract has been let to the Midland Construction Co., are: St. Thomas to Port Stanley, Ont., 8 miles; from Lambeth to Delaware, Ont., 6 miles. The existing line extends from London to St. Thomas, 16 miles. A. E. Welch, London, Ont., is Manager. The company has also under survey a line from London to Ingersoll, about 20 miles. Nothing has been decided as to construction of this latter line. The question of the entrance of the company's line into St. Thomas is yet under discussion. (Dec., 1904, pg. 431.)

Three Rivers, St. Maurice, Maskinonge and Champlain Electric Ry.—P. E. Panneton, L. E. Dufresne, J. Bureau, P. H. Heroux, L. P. Normand, will apply, next session of the Quebec Legislature, for an act incorporating a company with this title, to construct an electric railway from Three Rivers, Que., through the counties of St. Maurice, Maskinonge and Champlain. (Feb., pg. 73.)

Toronto and Hamilton Ry.—When the company obtained its act of incorporation, a clause was inserted providing that a route across the beach at Burlington, Ont., could only be obtained with the consent of the townships of Saltfleet and Nelson. The company has been negotiating with the townships ever since, but a final and satisfactory agreement has not been reached. As the route for the line has been laid out except through the Beach sections of these townships, the company has given notice that it will apply at the current session of the Dominion Parliament for an act authorizing it to construct its railway across the Beach without the consent of the townships named. It is understood that the route for the projected line has now been all arranged for, and that a contract for grading between Toronto and Hamilton, Ont., will be let in the spring. (Feb., pg. 73.)

Toronto and York Radial Ry.—Application will be made next session of the Ontario Legislature for an act extending the time for the completion of the company's projected lines; authorizing the construction of an extension of the Scarboro division to Bowmanville and Cobourg, Ont.; and for power to acquire land for markets and parks.

In connection with the proposed extension the Scarboro Division will be extended to

Highland Creek, 10 miles from the starting point of the line at the Woodbine, Toronto; early in the spring. Negotiations are in progress with the Pickering township council for a franchise, and a provisional agreement has been reached. The company promises, if the agreement is finally passed, to have the extension through the township completed and in operation by Dec. 31.

On the Mimico Division the extension from Long Branch to Oakville will be gone on with early in the spring, and it is hoped to have it completed in the fall. (Feb., pg. 73.)

Winnipeg Electric Ry.—Plans have been submitted to the Winnipeg Board of Works for the extension of the Academy Road line to the new suburban park at St. James.

Winnipeg, Selkirk and Lake Winnipeg Ry.—The Manitoba Legislature last session authorized the extension of the line from its present terminus at the northern city limits to some point within the city, no rights of the Winnipeg Street Ry. to be affected by the passing of the act.

Finance, Meetings, etc.

British Columbia Electric Ry.—Railway earnings for Dec.:—Vancouver, \$19,845; Victoria, \$11,912; Westminster, \$10,912; total, \$42,669, against \$36,877 for Dec., 1903. Gross earnings: railway and lighting, \$89,447, against \$81,628 for Dec., 1903. Working expenses, \$42,143; renewal fund, \$6,695; net income, \$40,609, against \$41,564, \$4,988, and \$35,076 for Dec., 1903. Aggregate net earnings for six months ended Dec. 31, \$172,422, against \$156,089 for the same period, 1903.

Halifax Electric Tramway Co.—Railway receipts for Jan., \$10,255.82, against \$10,677.51 for Jan., 1904.

Hamilton, Grimsby and Beamsville Ry.—The annual meeting announced to be held Jan. 23 was adjourned for a month.

Hamilton Cataract Power, Light and Traction Co.—The annual meeting, which was to have been held Feb. 13, has been postponed to March 6, owing to the illness of the President, J. M. Gibson, the former Attorney-General of Ontario.

According to the statements, the gross receipts were \$761,170.16. The surplus, after paying operating expenses, maintenance, bond interest, etc., was \$212,007.19. The company's assets are \$7,738,510.63. The liabilities include \$2,558,200 preferred stock, \$1,700,000 common stock, \$2,349,000 general mortgage bonds, \$500,000 Hamilton Street Railway bonds, and \$100,000 H. and D. Railway bonds.

The receipts of the Hamilton St. Ry. Co., one of the subsidiary companies, for 1904 were \$219,594, a gain of nearly \$20,000 over the figures for 1903. In spite of the fact that the company cut down the service in Oct., the receipts for the last quarter were \$51,448, an increase of nearly \$2,500 over the corresponding quarter in 1903.

Hamilton Street Ry.—The receipts for 1904 were reported to be about \$20,000 in excess of those for 1903.

Hull Electric Ry.—The officers and directors for the past year have been re-elected for the current year. W. R. Taylor, Aylmer, Que., is Secretary.

The Levis County Ry. employees went out on strike Jan. 29, one cause of the strike being non-payment of wages. The line, however, continued its operations, although it was reported to be in financial difficulties. Press reports at Quebec state that an arrangement has been made with the Messrs. King, by which that firm takes over the road for three years, and pays off its indebtedness. If at the end of that time the company is not pre-

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pared to retake possession, the property will pass to the King firm. The report states that G. U. G. Holman is to be retained as Manager.

London Street Ry.—The company owns 31 miles of line in London, Ont., and statistics for the year ended June 30, 1904, show: Gross earnings, \$175,006.20; net earnings, \$56,926.82; proportion of earnings to working expenses, 76.2%; earnings per train mile, 14.65 cents; operating per train mile, 11.77 cents; total miles run by cars, 1,198,672; passengers carried, 4,104,719.

Montreal Street Ry.—The company has submitted an offer to the city council for the extension of its franchise for 32 years from the end of the 18 years which the present franchise has to run. The suggestion is that the company pay \$100,000 a year for 18 years, \$150,000 a year for the next 10 years, \$200,000 a year for the succeeding 10 years, and \$250,000 a year for the remaining 12 years, besides which it would pave the track way, and water the streets on the city providing the paving blocks and the water. An exclusive franchise within the city limits is desired.

Montreal Street Ry.—Total earnings for Jan., \$203,235.40; net earnings, \$51,559.52; fixed charges, \$19,035.25; surplus, \$32,524.27, against \$183,708.11 gross; \$52,220.81 net; \$16,481.57 fixed charges and \$37,739.24 surplus for Jan., 1904. Aggregate earnings for four months ended Jan. 31, \$841,349.63; net earnings, \$287,367.21; fixed charges, \$75,327.77; surplus, \$212,039.44; against \$769,136.27 gross; \$486,837.22 net; \$68,848.40 fixed charges, and \$213,450.65 surplus for same period, 1903-04.

Niagara Gorge Ry.—The officers and directors for the current year are: President, J. T. Jones; Vice-President, H. P. Bissell; Treasurer and General Manager, B. L. Jones; Secretary, R. E. Powers; other directors: J. F. Aldrich, C. M. Bushnell, R. R. Hefford, W. H. Hotchkiss, J. A. Jones, F. W. Greene, J. H. Metcalfe.

Niagara, St. Catharines and Toronto Ry.—The officers and directors of the new company are: President, F. Nicholls; Vice-President, E. R. Wood; other directors: D. D. Mann, Z. A. Lash, K. C., E. Jarvis, H. G. Nicholls; Assistant Sec.-Treasurer, C. E. A. Goldman, all of Toronto.

St. Thomas Electric Ry.—The receipts for Jan. were \$773.13, and the payments \$1,125.75.

Toronto Ry.—Earnings for Jan.: \$196,969.98, against \$179,359.92 for Jan., 1904.

Winnipeg Electric Ry.—The company has paid to the Winnipeg City Council \$20,377.11 as percentage on the gross earnings for 1904. The earnings as shown by the statement appended amounted to \$407,542.30, of which \$129,702.30 was for cash fares and \$277,840 for tickets.

An act was passed last session of the Manitoba Legislature confirming the mortgage of the company's property to the Royal Trust Co., Montreal, as security for its bond issue of \$5,000,000.

The annual meeting was held Jan. 25, at which a satisfactory report was presented by the directors. The officers and directors for the current year are: President, W. Mackenzie, Toronto; Vice-President, W. Whyte, Winnipeg; Secretary-Treasurer, F. M. Morse, Winnipeg; other directors: Sir Wm. Van Horne, Montreal; D. D. Mann, D. B. Hanna, Toronto; A. M. Nanton, Winnipeg.

Woodstock, Thames Valley and Ingersoll Ry.—Following are the officers and directors for the current year: President and Treasurer, J. G. Wallace; Vice-President, W. J. Ickes; Secretary, H. H. Powell; General Manager, S. R. Ickes; other directors: W. Nesbitt, M. Karns.

Electric Railway Notes.

The St. John, N.B., Ry. has ordered six open cars, to be delivered in April.

The Winnipeg Electric Ry. is constructing a car similar to the 58 ft. one mentioned in our last issue.

The B.C. Electric Ry. has purchased the first car owned by the Nelson Electric Tramway Co., and after overhauling it will be used on a branch line.

The portions of the car equipment for the Southwestern Traction Co. being manufactured in Great Britain are ready for shipment there and are expected in London, Ont., at an early date.

W. D. Mahon, President of the International Association of Street Railway Employees, addressing the employees of the Toronto Ry. recently, advocated the starting of a superannuation fund. The local association declined to endorse the proposal.

The Attorney-General of Ontario has taken action under the Lord's Day Observance Act against the Grand Valley Ry. for operating its cars on Sundays between Brantford and Galt, Ont. The company is operating under a Dominion charter, and claims to be exempt from the terms of the Ontario act.

The Hamilton City Council will apply next session of the Ontario Legislature for an act authorizing the courts in any action or proceeding against the Hamilton Street Ry., that may be tried or brought before them, to make such orders as may be necessary in the interests of justice to enforce a substantial compliance with the agreements between the council and the company. This application is the result of the recent action against the company in which the court decided that the city had not a right, under its agreement, to regulate the service.

Following are electric railway statistics for the Dominion for the year ended June 30, 1904:—There were in operation 767 miles of line, as against 759 in 1903. The capital, including Dominion and Provincial subsidies and municipal aid, was \$80,453,609, an increase of \$1,219,932. Working expenses were \$5,326,517, an increase of \$853,659 over the year previous. Net earnings were \$3,125,092, or an increase of \$366,273. There were 181,689,998 passengers carried, against 155,662,812 for the preceding year. Of freight 400,161 tons were carried, 28,876 more than in 1902-3. Ten passengers were killed and a like number in the previous year.

The B.C. Electric Ry. car shop at New Westminster, B.C., has in course of construction six cars for the Victoria lines. It will construct during the current year four 14-bench, convertible double truck cars; four 12-bench convertible double truck cars; one double truck work car with rotary sweepers attached, and six 5½ yard dump cars for the Vancouver lines; one 50 ft. double truck interurban car, and one 30 ft. convertible city car for the New Westminster line. The company will also construct three 50 ft. double truck interurban cars, and one 40 ft. freight car for the Vancouver and Lulu Island Ry., which the B.C.E. Ry. will in future operate as an electric railway.

W. H. Moore, Assistant to the President, and R. J. Fleming, General Manager, and some other officials of the Toronto Ry., have visited a number of cities in the United States with a view of obtaining information in regard to the electric car service there that may be of use in the working of the Toronto lines. General Manager Fleming said the U.S. lines were no better than those in Toronto, and the same complaints were made in regard to the service in the cities there as were made in Toronto. As a result of the trip, it has been decided to equip the Toronto cars with air

brakes; to do away with trailer cars, and to add new motor cars as fast as they can be built and equipped. The fender question is under consideration.

Grain Elevator Notes.

The Crown Elevator Co., Minneapolis, Minn., is preparing for the erection of an elevator near St. Boniface, Man., to be completed this year.

J. A. Jamieson, of Montreal, will superintend the construction of the elevator at Port Colborne, Ont., for the Dominion Government, for which he has prepared plans.

The Grain Growers' Association, meeting at Portage la Prairie, Man., recently, adopted a resolution recommending that the railway companies take over the elevator system of the country and operate it.

The Ogilvie Flour Mills Co.'s 500,000 bush. elevator, recently completed at Fort William, Ont., is of steel, and is of the cylindrical type, the interspaces and outside pockets between the cylinders being also available for storage. A unique feature of the building, says the American Elevator and Grain Trade, is in the first story, or basement construction, which, with the foundation, hopper bottoms of the bins, floors and supporting columns, is all in one monolithic mass of re-enforced concrete. This first story gives a working space under the entire area of the bins 10 ft. high, and contains four belt conveyers and the steel spouting by which bins are emptied into the elevator legs. There are three steel elevator legs of 15,000 bush. capacity per hour, for handling the grain in and out of the building. The elevator is operated by electricity supplied from the new power house of the C.P.R. The foundations have been completed for the erection of a 3,000 barrel flour mill for the Ogilvie Co., on a site adjoining the elevator.

The grain handled at the elevators at Port William and Port Arthur, Ont., during the season of navigation of 1904, amounted to 17,046,939½ bush., against 15,755,456 bush. in 1903. Of this, 14,274,804.40 bush. were carried in Canadian bottoms to eleven Canadian and two U.S. ports, whilst 2,772,135.10 bush. were carried in U.S. bottoms to four U.S. ports, against 13,814,595.40 bush. and 1,940,860.20 bush. respectively in 1903. The Canadian grain handled at the Canadian elevators at the eastern end of the inland navigation was:

	1904 Bush.	1903 Bush.
Depot Harbor.....	4,393,117.20	2,229,052.10
Goderich.....	2,030,641.20	1,844,747.50
Owen Sound.....	1,506,963.20	1,514,786.30
Midland.....	1,178,711.00	2,580,116.40
Montreal.....	1,112,927.50	780,190.50
Sarnia.....	1,051,135.30	677,794.00
Meaford.....	843,009.20	672,007.10
Collingwood.....	594,906.10	556,091.50
Sault Ste. Marie (for orders).....	210,000.00	.....
Kingston.....	206,723.20	1,334,162.00
Port Colborne.....	141,800.50	.....
Total.....	14,274,804.10	13,814,595.40

SHIPPING MATTERS.

Navigation Rules for the Great Lakes.

One of the subjects receiving special consideration at the first meeting of the Dominion Marine Association in Ottawa, in April, 1903, was chapter 79 of the Revised Statutes of Canada, respecting the navigation of Canadian waters; and one of the first resolutions of the Association was to deplore the fact that while these "Rules of the Road" were in force on all Canadian waters, a set of rules, differing in many important particulars, were laid down by a statute of the United States to govern the navigation of vessels of that country on the Great Lakes and their con-

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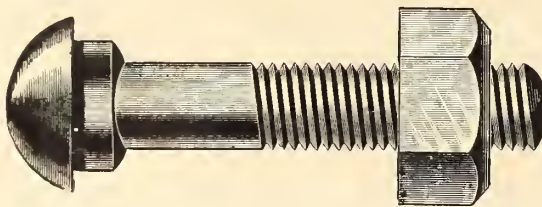
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A FEW POINTERS.

On arrival at Winnipeg the wisest policy for any new settler to adopt is to remain in Winnipeg for a few days and learn for himself all about the lands offered for sale and to homestead.

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necting and tributary waters. The Association recognized the dangers and difficulties involved in this difference, and referred the matter to a committee with instructions to take all steps possible to bring about uniformity in the rules on this great water highway, where the vessels of both countries are constantly meeting and passing—now in Canadian and now in U.S. waters. That committee has just about brought its duties to a successful close.

The committee's first step was to arrange a conference with representatives of the Lake Carriers' Association of the U.S.; and at a meeting in Buffalo, where the Canadian representatives were accompanied by the late John Bertram, Chairman of the Transportation Commission, a comparison of the rules was made and the points of most serious difference agreed upon. Later a correspondence was conducted with the Department of Marine and Fisheries at Ottawa, and in the session of 1904 the Canadian Parliament conferred power on the Governor-in-Council to adopt such rules on the waters named as might be advisable. In continued consultation with the Dominion Marine Association, the Department of Marine has now prepared a set of rules which have been printed and revised and finally agreed upon, and are expected to be issued at a very early date.

The new set of rules will take effect upon the Great Lakes and their connecting and tributary waters as far east as the lower exit of the Lachine Canal and the Victoria Bridge at Montreal, the designation of the waters affected being purposely as nearly as possible identical with the corresponding designation in the U.S. law. Chapter 79 of the Revised Statutes of Canada, containing what are called the International rules, will for obvious reasons remain in force east of Montreal and in other Canadian waters. The new set of rules will be printed in a separate pamphlet for circulation and use in the special limits designated.

These new rules will be identical with the old, except where they are altered to bring them into conformity with the U.S. law in the few important details agreed upon. Some of the most important changes may be summarized as follows:—

In the matter of fog signals (perhaps the most serious), clauses a, b, c, d, e, and f, of the Canadian Article 15, are struck out entirely and replaced by the corresponding clauses from the U.S. rules. They will be as follows:—

(a) A steam vessel under way, excepting only a steam vessel with a raft in tow, shall sound, at intervals of not more than one minute, three distinct blasts of her whistle.

(b) Every vessel in tow of another vessel shall, at intervals of one minute, sound four bells on a good and efficient properly placed bell as follows:—By striking the bell twice in quick succession, followed by a little longer interval, and then again striking twice in quick succession (as in striking four bells to indicate time).

(c) A steam vessel with a raft or a string of booms in tow shall sound at intervals of not more than one minute a screeching or modoc whistle from three to five seconds. Only steam vessels with raft or booms in tow, shall sound this screeching whistle in thick weather.

(d) A sailing vessel under way shall sound, at intervals of not more than one minute, when on the starboard tack, one blast; when on the port tack two blasts in succession, and when with the wind abaft the beam, three blasts in succession.

(e) A vessel when at anchor shall, at intervals of not more than one minute, ring the bell rapidly for about five seconds.

There can be no question as to the advisability of this change. To take one instance,

the "three blast" signal in a fog. Heretofore, if a Canadian vessel obeyed her law in a fog she would sound a prolonged blast at intervals of two minutes. If the captain were nervous under fear of a collision in a crowded stream, and the blast were not sufficiently prolonged, it might easily be taken for the signal "one short blast," which means, "I am directing my course to starboard." A United States vessel approaching might so understand it, and at the same time the U.S. fog signal of three distinct blasts—heard once and suddenly—would mean to the Canadian captain according to his present rule (next referred to), "My engines are going full speed astern." The possible results were so serious that as a matter of fact the U.S. rules have been largely adopted by Canadian vessels; captains and pilots preferring to take the risks of being found at fault for disobedience to the law of their land, rather than the greater risks of sailing under rules unintelligible to other vessels.

For the reasons above, the Canadian rule (last clause of article 28), "three short blasts" to mean "My engines are going full speed astern," is struck out, leaving only the port and starboard signals provided for.

Article 28 is amended also to include certain U.S. rules so as to forbid what is known as "cross signals"; to provide for cases of misunderstanding and differences of judgment as to proper signals, and also for signals for vessels approaching bends or curves.

Article 25 is amended by adding the U.S. rule that in all narrow channels where there is a current and in the rivers St. Mary, St. Clair, Detroit, Niagara, and St. Lawrence, when two steamers are meeting, the descending steamer shall have the right of way, and shall, before the vessels have arrived within the distance of half a mile of each other, give the signal necessary to indicate which side she elects to take.

The first part of article 32, requiring a bright fire to be burned on rafts, is struck out, and the U.S. rules regarding rafts, including bag or boom rafts, are adopted, with the change of 12 ft. height for lights, to 6 ft.

The U.S. rule requiring two white lights in a horizontal line athwart ships on a steam vessel towing a raft is added as clause (b) to article 3.

Double ended ferry boats are required to carry a central range of bright white lights at equal heights forward and aft.

The optional range light on steamers referred to in clause (e) of article 2 is rendered compulsory, as is also the small steering light named in article 3 for a steamer towing another vessel.

National Association of Marine Engineers.

The sixth annual meeting of the National Association of Marine Engineers of Canada was held at Collingwood from Jan. 31 to Feb. 3, the Grand President, T. J. S. Milne, Kingston, Ont., presiding. The others present were:—N. J. Morrison, Grand Secretary-Treasurer, St. John, N.B.; J. Gillie, Grand Auditor, Kingston, Ont.; C. Robertson, Grand Conductor, Owen Sound, Ont.; and the following representatives of local councils:—F. S. Henning, H. Parker, Toronto; W. I. Barlowe, D. Kingston, St. John, N.B.; C. A. Farrar, J. A. Breckenridge, Collingwood; J. F. McEwan, Kingston, Ont.; T. Theriault, J. E. Blanchett, Levis, Que.; J. A. Crapeau, A. Charbonneau, Sorel, Que.; J. G. Simpson, Owen Sound, Ont.; L. B. Cronk, G. Sylvester, Windsor, Ont. The Montreal council and the two councils in British Columbia were not represented.

The Grand President's report congratulated the Association on its growth during the past year, and said that his only regret in regard to the work was the failure to get

the desired amendments to the Steamboat Inspection Act passed by Parliament. Another bill had, however, been introduced in the House of Commons by L. McCarthy, M.P., and he hoped it would pass. The Grand Secretary's report showed receipts during the year of \$1,638.13 and disbursements of \$956.96 leaving a balance of \$681.17.

F. S. Henning, Toronto; A. Milne, Kingston, Ont.; N. Ducap, Montreal; A. L. de Martigny, Sorel, Que., and L. B. Cronk, Windsor, Ont., were appointed to represent the Association at Ottawa in support of the bill to amend the Steamboat Inspection Act, 1898, with power to name substitutes if any could not attend. L. McCarthy, M.P., met the delegates at the meeting, and discussed the bill with them. A number of other matters of interest to marine engineers were discussed.

The following officers were elected for the current year:—Grand President, F. S. Henning, Toronto; Grand Vice-President, J. A. Crapeau, Sorel, Que.; Grand Secretary-Treasurer, N. J. Morrison, St. John, N.B.; Grand Conductor, C. Robertson, Owen Sound, Ont.; Grand Doorkeeper, T. Theriault, Levis, Que.; Grand Auditors, J. Gillie, Kingston, Ont.; L. B. Cronk, Windsor, Ont. It was decided to hold the next meeting at Levis, Que., on Jan. 23, 1906.

The Collingwood local council entertained the delegates at dinner on the last day of the meeting, a number of other guests being present, including L. McCarthy, M.P.; Captain T. Donnelly, Kingston, Ont., and the mayor and aldermen of Collingwood.

Following is a list of local councils and their secretaries:—Toronto, G. W. Clarkson; St. John, N.B., G. T. G. Blewett; Collingwood, Ont., J. A. Breckenridge; Kingston, Ont., J. Gillie; Montreal, N. Ducap; Victoria, B.C., P. Gordon; Vancouver, B.C., T. M. Heard; Levis, Que., E. Belanger; Sorel, Que., J. A. Crapeau; Owen Sound, Ont., R. McLaren; Windsor, Ont., N. Maitland.

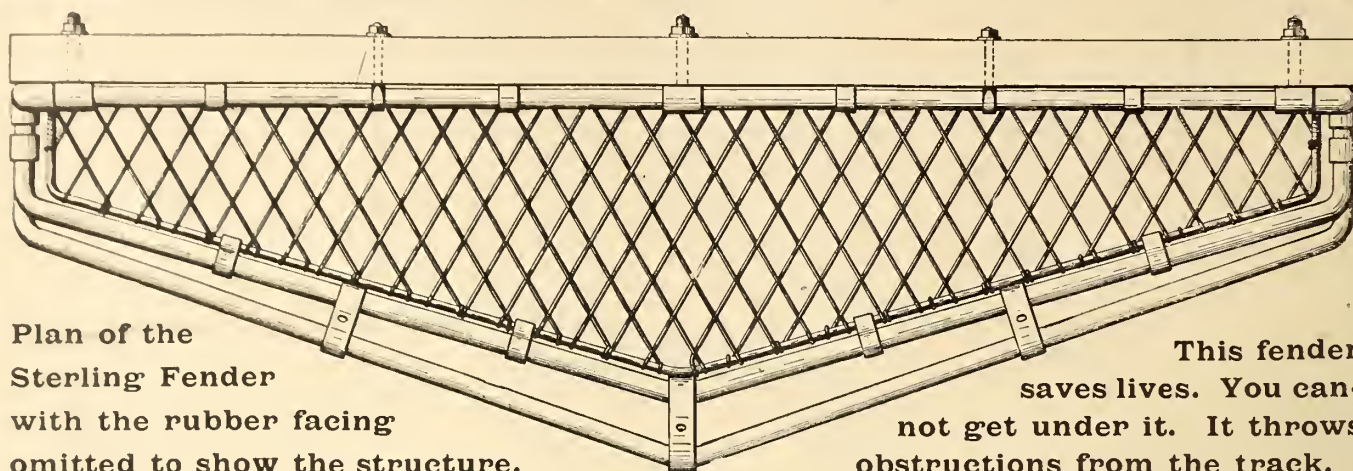
Masters and Mates Association.

The annual meeting of the Grand Association of the Canadian Association of Masters and Mates was held at St. Catharines, Ont., Feb. 14 and 15, the delegates present being captains from the following Ontario points:—J. Wilson, F. Scott, A. McIntyre, Collingwood; A. Milligan, A. McManagh, J. T. Towers, St. Catharines; Jas. Martin, Jas. Murray, Jas. Dix, Kingston; R. D. Simpson, M. McKay, Owen Sound; J. McGiffen, J. V. Trowell, Toronto; W. J. Madden, Roy Burke, Penetang; D. Burke, Midland; J. W. McCoppen, Port Colborne; and W. Ireland, Parry Sound. Captain Jas. Wilson, Grand Master, presided.

After routine business the reports of the grand officers, President, Secretary and Treasurer, were presented and adopted. It was shown that the Association has grown satisfactorily, and that it now has branch associations at Toronto, Collingwood, Parry Sound, Penetang, Midland, Owen Sound, Kingston, St. Catharines, with a total membership of over 300. The Association was started at a meeting in Toronto about four years ago; the first Grand Association meeting was held at Collingwood in 1903, and the second at Toronto in 1904.

Communications were submitted from different local associations suggesting further aids to navigation on the Great Lakes, and were referred to Captains Dix, Murray and Scott for examination and report. Such of the suggestions as may be approved by the committee will be transmitted to the Department of Marine, with a request that they be acted upon. A number of resolutions were adopted, the most important being:—

To ask the Dominion Government to prevent aliens from serving as masters or mates on Canadian vessels.



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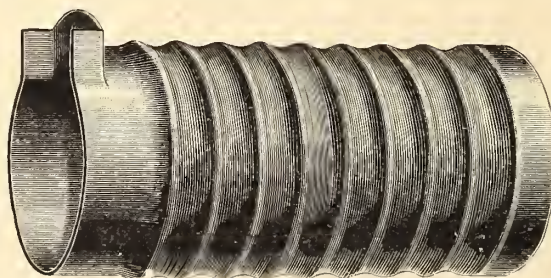
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To amend the Masters and Mates Act so as to make the examinations more rigid, and to prevent the issue of certificates to persons who are not able to pass proper examinations.

To rescind the order-in-council which permits certain collectors of customs (people who are utterly unqualified) to act as examiners of masters and mates, and to appoint a properly qualified examiner or examiners, to be paid by salary, and not by fees, as at present.

To make the rules for sailing and fog signals, signal lights and whistles, towing rafts, etc., on the Great Lakes uniform with those of the United States.

To negotiate with the U.S. Government for an abrogation of the U.S. law which compels Canadian vessels going to Lake Michigan to call at either Cheboygan or Mackinac and report, this law being a relic of the old war time of 1812, and causing delay, and in heavy or rough weather serious danger, and there being no similar law in Canada.

To provide that all persons acting as pilots on the St. Lawrence River shall be examined and furnished with certificates if found qualified, many of the pilots at present employed having no certificate and being irresponsible.

That all lake tugs over 50 tons be required to employ a duly qualified mate holding a certificate of competency as such.

Captains McCoppen, Milligan, Boyle and Towers were appointed a committee on legislation to act with E. A. Lancaster, M.P. for Lincoln and Niagara, who has charge of the bill before the House of Commons to amend the Masters and Mates Act, and to secure other needed legislation. A delegation of two was appointed to go to Ottawa to see the Minister of Marine in regard to proposed legislation, aids to navigation, and other matters referred to in the resolutions already mentioned.

The following captains were elected grand officers:—Master, Jas. Wilson, Collingwood; First Officer, J. McGiffen, Toronto; Secretary, W. Ireland, Parry Sound; Treasurer, M. McKay, Owen Sound; Pilot, J. Dix, Kingston; Watchman, J. T. Towers, St. Catharines; Lookoutman, W. J. Madden, Penetang; Auditors, A. McIntyre, Collingwood, W. J. McCoppen, Port Colborne. The next meeting of the Grand Association will be held in Toronto, on the second Tuesday in February, 1906.

The Association has adopted an official burgee with blue ground and red border, a wreath of maple leaves and a heaver being shown on a white insertion. Its badge is a steamer's steering wheel and an anchor with the letters C.A.M.M.

The mayor of St. Catharines and the president of the Board of Trade called on the delegates in session and welcomed them to the city. The publisher of THE RAILWAY AND SHIPPING WORLD also addressed them briefly, and in response several of the delegates expressed their appreciation of this paper and their satisfaction with its marine department.

The Niagara, St. Catharines and Toronto Ry. took the delegates and several friends by special car from St. Catharines to Niagara Falls and return, and gave them a splendid winter view of the Falls and of the ice bridge. General Manager Seixas accompanied the party. The line has had heavy snow to contend with, but with its excellent equipment, including a rotary snow plow, has kept its service up with commendable regularity.

Richelieu and Ontario Navigation Co.

The report for 1904, presented at the annual meeting in Montreal, Feb. 6, is as follows:—

	1904	1903
Gross receipts.....	\$999,869.51	\$1,104,801.97
Operating expenses.....	886,410.29	894,745.66
Fixed charges.....	19,146.29	20,423.74
Net profit....	\$94,312.93	\$189,632.57

A dividend of 3%, amounting to \$93,960.00, was paid May 2, 1904. The reduction in gross earnings is virtually all in passenger traffic, and is largely attributable to the influence of the St. Louis exposition, and to the sailing season opening up some three weeks later than in 1903, the loss of earnings due to the backward season alone amounting to \$24,928.95. The new steamer Montreal is almost completed, and will be ready for service on the opening of navigation. The company is to be congratulated on the manner in which this steamer is turning out, and the result more than justifies the purchase of the hull by the directors. Owing to the increase of the freight and passenger traffic on the Hamilton line, the steamer Spartan is being lengthened 25 feet by the Bertram Engine Works, and will be ready for service on the opening of navigation. This change will considerably increase her passenger accommodation, and will add 40% to her freight carrying capacity. The steamers Carolina and Virginia have been thoroughly overhauled and repaired, and the repairs made have materially improved their value. The steamer Canada is being rebuilt at Levis for the Saguenay Division. The balance of the fleet and the company's hotels, shops, wharves and shore property have been thoroughly maintained during the past year, and quite a number of improvements and betterments have been made on same. The marine railway dock, mentioned in the last annual report, is still receiving attention, and the matter is progressing favorably. The bond issue, amounting originally to \$571,833.33, now stands at \$349,426.69, \$25,793.34 having been redeemed Mar. 1, 1904, and the company has in the treasury \$29,199.99 of bonds redeemable Mar., 1905. The expenses of the operating department have materially decreased during the past season.

INCOME ACCOUNT.

Dividend 3%, paid May 2, 1904.....	\$ 93,960.00
Written off—Final settlement, St. Lawrence Steam Navigation Co., Steamers Canada and Carolina, depreciation of stores and steamers' outfit and bad debts....	118,249.54
	\$212,209.54
Net Surplus.....	15,365.50
	\$227,575.04
Surplus, Dec. 31, 1903.....	\$133,262.11
Net Profit for 1904.....	94,312.93
	\$227,575.04

ASSETS.

Steamers, real estate and buildings, wharves, etc.....	\$3,608,101.42
Coal, stores, provisions, etc.....	77,400.36
Accounts receivable.....	23,476.77
	\$3,708,978.55

LIABILITIES.

Capital stock.....	\$3,132,000.00
Bonds, 5% sterling.....	\$571,833.33
Cancelled.....	193,206.65
On hand.....	29,199.99
	\$222,406.64
	\$349,426.69
Accounts payable.....	96,822.34
Unclaimed dividends.....	234.00
Accrued interest on bonds.....	5,823.78
Bank loans.....	109,306.24
Surplus.....	15,365.50
	\$3,708,978.55

The officers and directors for the current year are:—President, R. Forget, M.P.; Vice-President, W. Wainwright; other directors: Hon. L. J. Forget, Col. F. C. Henshaw, G. Caverhill, J. K. Osborne, H. M. Pellatt, W. Hanson, G. O. Paradis, E. B. Garneau, H. M. Molson; General Manager, C. J. Smith; Secretary, F. P. Smith.

Dominion Marine Association.

The executive committee and a number of members of the Association interested in grain transportation on the Great Lakes met in Toronto, Feb. 1, to discuss a number of matters of importance. There were present: C. F. Gildersleeve, H. W. Richardson, T. Donnelly, R. O. MacKay, J. A. Cuttle, A. A. Wright, J. H. Hall; members of the executive committee; and J. S. Playfair, T. Conlon, A. B. MacKay, J. H. G. Hagarty, J. B. Fairgrieve, J. T. Matthews, C. H. Nicholson, D. B. Hanna, G. Marks, H. A. McKee, Capt. Bassett, Capt. Foote, R. Williamson, F. Wiley, D. Fair, and others. The questions discussed included the shortages and surpluses in the weights of grain at receiving elevators as compared with the loading elevators; elevator facilities, bills of lading, demurrage, etc.

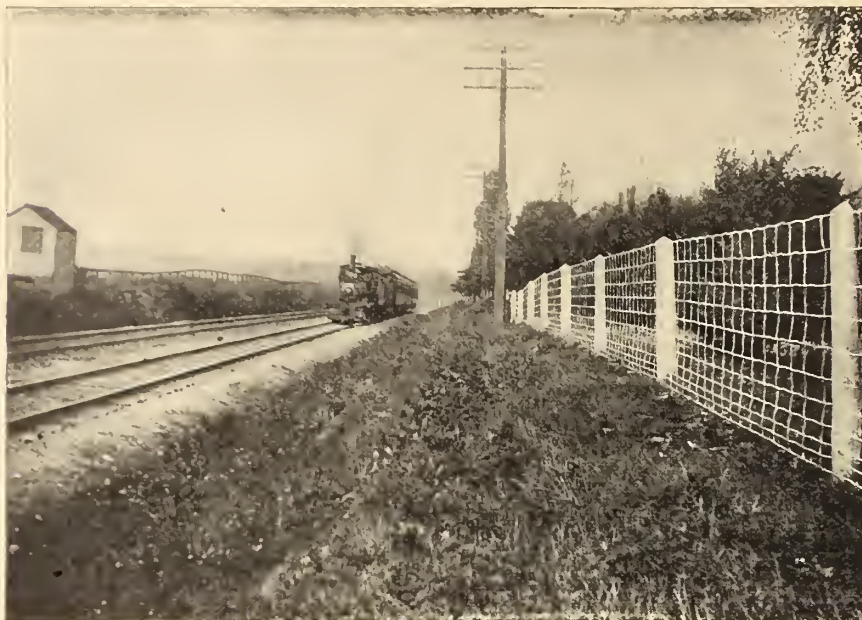
The annual meeting of the Association will be held at Ottawa, early in March.

In connection with matters that have been under discussion by the executive, it may be of interest to state that the revision of the rules of the road has been completed, and it is expected that copies of the new rules will be ready for distribution at an early date. The original rules passed in Chap. 79 of the Revised Statutes of Canada remain in force upon all waters with the exception of those upon which the present issue is to take effect, which is confined in its operations to the same waters as are referred to in the U.S. Rules, viz.: the Great Lakes and their connecting and tributary waters as far east as Montreal, the dividing line taken at Montreal being the Victoria Bridge, and the lower exit of the Lachine Canal. Further particulars in regard to the new rules are given on page 113.

So far as the revision of the rules and regulations as to the inspection of vessels are concerned, it is regretted by marine men that the revision has taken place on both sides of the boundary simultaneously and without consultation. Representations were recently made to the U.S. Government in respect of inspection matters, and an intimation has been given to the effect that the rules will be considerably altered, and the request of the passenger steamboat interests will probably be acceded to on a number of important points.

A statute passed by the Dominion Parliament in 1904 gave the Governor-in-Council power to remit the inspection fees imposed upon U.S. vessels trading into Canadian waters as soon as the U.S. Government remitted similar fees on Canadian vessels trading to U.S. ports. The Secretary of the Dominion Marine Association has received a definite undertaking from the Secretary of Commerce and Labor at Washington, that in pursuance of the policy of the U.S. Government the inspection fee upon Canadian vessels would immediately be removed whenever the Canadian Government took similar action with regard to the fee imposed here upon U.S. vessels. This view has been presented by the Association to the Government at Ottawa, and it is understood that the necessary negotiations are in progress between the two Governments. When these are completed an order-in-council will be issued abolishing the fee on U.S. vessels, which will be followed by the Department of Commerce and Labor at Washington, which was given full power by the statute to make the change, taking similar action there. It is hoped that the action will be taken before the opening of navigation in order to save payment of the fees for 1905.

The investigation into the alleged frauds on pilots at Vancouver has resulted in the dismissal of the chairman of the Board, E. Crow Baker, who was shown to have unlawfully retained funds belonging to the pilots.



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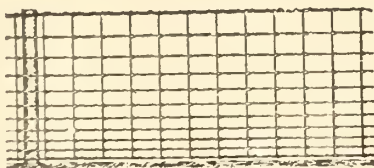
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Northern Navigation Co. of Ontario.

The annual meeting was held in Toronto, Jan. 31, President H. C. Hammond in the chair. The report and statements as published in our last issue, were adopted after a number of questions had been asked and answered by the President. Among other things it was ascertained that the reduction in the value of the steamers from \$912,478.28 to \$870,000, as given in the statement of assets, had been arrived at arbitrarily, and not on a percentage or other basis. Nothing had been written off for depreciation in previous years. The various steamers were valued at about the following figures: Huronic, \$325,000; Monarch, \$100,000; United Empire, \$95,000; Germanic, \$70,000; City of Midland, \$60,000; Britannic, \$25,000; City of Toronto, \$25,000; Majestic, \$100,000; City of Collingwood, \$70,000. The earnings of the Lake Superior and Georgian Bay divisions were not shown separately, but there was probably a loss in the operation of the latter division during the year. The operating expenses for 1904 were 90%, against 94% in 1903.

A number of by-laws passed by the directors were approved. In some cases these by-laws were several years old, and had been acted on by the old board without having been approved by the shareholders at previous annual meetings. The directors were voted \$750 for their services, the principal portion of which goes to C. E. Stephens, who is also Secretary-Treasurer, the President taking no pay other than the ordinary fee for directors' meetings.

A vote of thanks was passed to President Hammond for the important work he had performed, on motion of W. Hendrie and F. B. Cumberland, and was supported by Acton Burrows, who said it was the first year the company had been under honest management.

The directors were all re-elected, and they subsequently re-appointed the same officers. The board is as follows:—President, H. C. Hammond; Vice-President, W. J. Sheppard; Secretary-Treasurer, C. E. Stephens; other directors: J. S. Hendrie, F. A. Lett, W. D. Matthews, H. B. Smith, H. V. Telfer, C. D. Warren.

Chicago and St. Lawrence Steam Navigation Co.

The report presented at the annual meeting held in Toronto recently stated that the result of the season of 1904 was below the average for many years. The excess of Canadian vessels over the requirements of the Canadian trade still exists, and as long as this is the case low rates of freight must prevail. Eastbound traffic was carried during the past season at lower rates than had ever been known before. Dividends amounting to 8% on the capital had been paid, and \$4,604.72 had been carried to credit of profit and loss account, making altogether \$29,245.37 at the credit of that fund.

PROFIT AND LOSS.

Insurance.....	\$21,886.61
Directors' and auditors' fees, salaries, taxes, office rent, etc.....	10,058.18
	\$31,944.79
Dividend, 5%, paid July 2, 1904.....	\$28,165.00
Dividend, 3%, payable Jan. 2, 1905.....	16,899.00
	45,064.00
Balance carried forward.....	29,245.37
	\$106,254.16
Balance brought forward, Jan. 1, 1904	\$24,640.65
Steamships.....	\$81,102.41
Interest.....	511.10
	81,613.51
	\$106,254.16

LIABILITIES AND ASSETS.

LIABILITIES.	
Capital.....	\$563,300.00
Balance of profit carried forward.....	29,245.37
	\$592,545.37
ASSETS.	
Steamers Rosedale, Algonquin, Iroquois, W. D. Matthews.....	\$560,000.00
Insurance unexpired.....	5,500.00
Balance in bank.....	27,045.37
	\$592,545.37

The officers for the current year are: President, W. D. Matthews; Managing Director, Secretary and Treasurer, J. H. G. Hagarty; Superintendent, Capt. Crangle; other directors: E. B. Osler, C. S. Gzowski, G. F. Hagarty, Toronto; Jas. Carruthers, Montreal; G. R. Crowe, Winnipeg. The two latter are new directors, the number having been increased from six to eight.

Notices to Mariners.

The Dominion Department of Marine has issued the following notices:—

No. 129. Dec. 28.—Quebec—337. River St. Lawrence, ship channel between Quebec and Montreal, Pointe aux Trembles course, Ile Ste. Therese, upper range lights, change in position, new light buildings.

The above is the last notice for 1904.

No. 1. Jan. 10.—New Brunswick—1. Bay of Fundy, Grand Manan Island, Long Eddy point, change in fog alarm, new building. 2. Bay of Fundy, Campobello Island, Head harbor, change in fog bell. 3. South coast, Bay of Fundy, St. John harbor, change in position of fog bell at Beacon light station.

No. 2. Jan. 11.—Nova Scotia—7. Canso harbor, range lights established.

No. 3. Jan. 19. Nova Scotia—8. Bay of Fundy, northwest ledge bell buoy adrift. 9. South coast, Catch harbor, light established.

No. 4. Jan. 20.—Newfoundland—10. Belle Isle, north end, light house established.

No. 5. Jan. 21.—British Columbia—13. Northern waters, Chatham Sound, rocks located. 14. Chatham sound, Inskip passage, Port Simpson entrance, Birnie Island light, corrections.

No. 6. Jan. 23.—New Brunswick—15. South coast, Bay of Fundy, Quaco, buoys removed temporarily. Nova Scotia—16. South coast, approach to Halifax, inner automatic whistling buoy to be replaced by gas and whistling buoy.

Maritime Provinces and Newfoundland.

During 1904 Newfoundland owners purchased 41 vessels of 4,171 tons register from Nova Scotia owners.

It is understood that the projected harbor improvements at Glace Bay, N.S., will be commenced early in April.

Capt. W. Milner, Capt. P. Hanson and R. Lowrieson, of Sackville, N.B., have been appointed members of the pilotage authority for Sackville, N.B.

The Canada Atlantic and Plant Line has placed an order with a Glasgow, Scotland, firm for a new steamer of a larger size than the Halifax, for delivery in the fall.

"MARION" STEAM SHOVELS

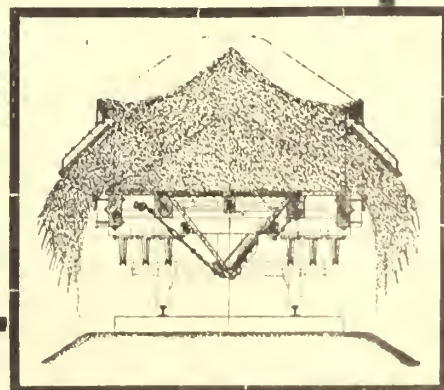
ANY SIZE OR CAPACITY DESIRED



- HAND CARS
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 - INSPECTION CARS
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 - OTHER TYPES OF LIGHT CARS
- ALSO —

Steel Rails, Scrapers, Barrows, Track
Jacks, Switch Ropes, Track Tools, etc.

F. H. HOPKINS & CO., MONTREAL
(Late James Cooper)

**Rodger Ballast Hart
Convertible Cars**

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"ROYAL MUSKOKA" HOTEL MUSKOKA LAKES, CANADA

Lakes of blue set with isles of emerald—Canoeing, Bathing, Fishing, Beautiful Water Trips, Golf and Tennis. Sleepful Nights and Happy Days await you at the . . .

"ROYAL MUSKOKA" HOTEL

HAY FEVER UNKNOWN

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General Passenger and Ticket Agent

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MONTREAL, CANADA

MUSKOKA

C.P.R. LANDS

THE CANADIAN PACIFIC RAILWAY COMPANY have 12,000,000 acres of choice farming lands for sale in Manitoba, Assiniboia, Saskatchewan and Alberta. Manitoba lands and Assiniboia lands east of third meridian, \$4.00 to \$10.00 per acre according to quality and location. Lands in South-Western Assiniboia and Southern Alberta, \$3.50 to \$8.00 per acre. Ranching lands generally \$3.50 to \$4.00 per acre. Northern Alberta and Saskatchewan lands generally \$6.00 to \$8.00 per acre. Maps showing the lands in detail will be sent free on application.

TERMS OF PAYMENT.

An actual settler may purchase not more than 640 acres, on the ten instalment plan by paying a cash instalment at time of purchase, interest at six per cent, on the unpaid purchase money at the end of the first year, and the balance of the principal with interest in nine equal instalments annually thereafter as shewn in the following table:—

160 Acres at \$3.00 per acre, cash payment \$71.90, first year's interest \$24.49 and nine instalments of \$60.00	
" " 3.50 " " " 83.90, " " " 28.58 " " " 70.00	
" " 4.00 " " " 95.85, " " " 32.64 " " " 80.00	
" " 4.50 " " " 107.85, " " " 36.73 " " " 90.00	
" " 5.00 " " " 119.85, " " " 40.81 " " " 100.00	
" " 5.50 " " " 131.80, " " " 44.89 " " " 110.00	
" " 6.00 " " " 143.80, " " " 48.98 " " " 120.00	

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

DISCOUNT FOR CASH.

If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. on five-sixths of the purchase money.

Interest at six per cent. will be charged on overdue instalments.

F. T. GRIFFIN,

Land Commissioner C.P.R. Co., Winnipeg.

CANADA NORTH-WEST LAND CO.

This Company has 750,000 acres of selected lands in Manitoba and Assiniboia which offer excellent opportunities to settlers and investors who desire to secure good lands in well-settled districts. These lands are on sale at the Company's Office at Winnipeg, and at the various land agencies of the Canadian Pacific Railway Company.

BUSINESS AND PLEASURE TRAVEL FROM AND TO

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will find everything supplied for comfort and convenience on trains of the

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Passengers lunch and dine in full view of the magnificent scenery for which the D. & H. is famed.

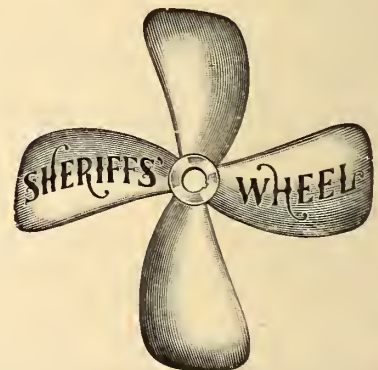
Through Pullmans on night and day trains without change from Montreal to New York City.

A little illustrated book of interesting excerpts from the history of railroad travel between Canada and New York will be mailed on request.

Abel I. Culver, J. W. Burdick,
2nd Vice-President. Pass. Traffic Man.

A. A. Heard,
Gen. Passenger Agent, - - ALBANY, N.Y.

SHERIFFS MANUFACTURING CO.



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Contractors for and Dealers in

Electrical Apparatus and Supplies

Experimental and Model Work,
Fine Machinery, Special Tools,
Patterns, Gear-Cutting, Specialties, Repairs, Etc.

ESTIMATES PROMPTLY FURNISHED.

The Customs outport of Pinette, under the survey of Charlottetown, P.E.I., has been abolished, and all business will in future be transacted at the latter port.

The Reid Newfoundland Co. proposes to put on a daily steamer service between Sydney, N.S., and Port aux Basques, Nfld., next season. It is understood that an order will shortly be placed for a steamer larger than the Bruce, for the service.

The Dominion cruiser Kingfisher, now lying at Shelburne, N.S., has been ordered to be sold. She is a schooner built at Shelburne, N.S., 1892, and having the following dimensions:—Length, 100 ft.; breadth, 23.7 ft.; depth, 10 ft.; register tonnage, 107 tons.

During 1904 there were built in Nova Scotia 87 schooners and one steamer, having a total of 2,827 tons; and there remains on the register 2,880 schooners and 65 steamers having a total of 125,506 tons register, an increase of 78 schooners and nine steamers over 1903.

The Fredericton and Woodstock Steamboat Co. has decided to sell its steamer Aberdeen. The officers and directors for the current year are: President, J. S. Neill; other directors: W. Fisher, M. B. McNally, F. R. Brooks, J. Palmer, G. T. Whelpley, R. Scott; Secretary-Treasurer, J. H. Barry.

Steps have been taken at Halifax, N.S., with the object of promoting the formation of a large company to carry on steel ship-building there. Local capitalists have subscribed \$15,000 and Swan and Hunter, ship-builders, Newcastle-on-Tyne, England, a similar amount. This company controls the available sites, and proposes to negotiate with firms or private persons desirous of starting a yard. The municipal and provincial bonuses available amount to \$300,000, besides which the Dominion Government offers a subsidy for the tonnage turned out.

The new steamer which is being built at Glasgow, Scotland, for the Baie des Chaleurs route, by Russell & Co., will be named the Lady Eileen. She will be constructed of steel, fitted with twin screws, and will be driven by triple expansion engines at a speed of 15 knots an hour. Her dimensions are: length, 185 ft. over all; breadth, 31 ft.; depth, 12 ft. 6 in.; with a depth at the water line of 9 ft. 6 in. In addition to a large freight capacity and quarters for the crew, accommodation will be provided for 100 saloon and 100 second-class passengers. The steamer is to be completed for delivery at Glasgow, April 10, and is expected to reach

Canada by the end of the month. The steamer is owned by the Interprovincial Navigation Co., of Canada, which has its offices at Richardsville, N.B., and will trade from Campbellton, N.B., to Gaspe and other points on the Baie des Chaleurs coast in N.B. and Quebec. The company has agreements with the Dominion Government respecting the carriage of the mails, and with the Intercolonial Ry. respecting the train and boat connection at Campbellton. The officers of the company are: President, D. Richards, Campbellton, N.B.; other directors: J. F. Grute, T. Enright, Bonaventure county, Que.; A. T. Carter, J. X. Lavoie, Gaspe county, Que.; Secretary-Treasurer and Manager F. S. Blair, Campbellton, N.B.

Province of Quebec Shipping.

The Richelieu and Ontario Navigation Co. has passed a resolution asking the Government to construct a marine railway at Sorel, Que.

The Montreal Transportation Co.'s officers for the current year are: President, B. McLennan; Managing Director, J. A. Cottle; Secretary, G. M. Kinghorn; other directors: T. A. Crane, A. Kingman, S. Robertson, A. E. Ogilvie.

The Quebec Board of Trade favors the construction of a second graving dock there, a site at Spencer Cove being suggested. In 1904 several owners had to send their vessels to Halifax, N.S., owing to the Quebec dock being occupied.

The North American Transportation Co. is seeking to recover \$5,000 from the Atlas Assurance Co., and \$4,000 from the British America Assurance Co., insurance on the str. Admiral, which was burned to the water's edge in Montreal, Sept., 1904.

The proposal to construct a ship canal from the St. Lawrence River to Lake Champlain, for which the Lake Champlain and St. Lawrence Ship Canal Co. obtained a Dominion act in 1898, is again before Parliament, the promoters asking for an extension of seven years for the completion of the work.

The judgment of Capt. Salmon upon the investigation before him as Wreck Commissioner, of the circumstances attending the sinking of the Richelieu and Ontario Navigation Co.'s str. Canada, after collision with the Black Diamond Line str. Cape Breton in June, 1904, is being ignored by the Minister of Marine. The matter was discussed in

Parliament, and the Minister stated that the inquiry was only a preliminary one, and that the judgment was illegal. Pilot St. Louis of the Canada still continues as a pilot.

The position of the Montreal Harbor Board was discussed in the House of Commons recently, in the course of which the Minister of Marine stated that it was intended during the current year to revise the constitution of the Board. From what was stated by different speakers it would appear that there is a considerable diversity of opinion between the Board and the Government upon matters affecting the welfare of the port, and that as a result the works necessary to meet the demands of the trade are not progressed with as speedily as could be wished. The Government proposal is to have a commission of five members nominated by the Government and responsible to it for the control of the harbor, the docks, wharves, sheds, etc.

Ontario and the Great Lakes.

N. P. Horton has been appointed measuring surveyor of shipping for the port of Owen Sound, Ont.

The Pere Marquette Rd. engineers have been making surveys at Courtright, Ont., with a view of building a dock about 1,000 ft. long.

It is said that negotiations have been going on for the purchase by the C.P.R. Co. of the Northern Navigation Co.'s steamship Huronic, but it is not expected that the sale will take place.

The Toronto Board of Control has decided to advertise for tenders for the lease of the Geddes and Harbor Square wharves, and to have a report upon the new buildings for the Island ferry service, and the sheds for the Turbine Steamship Co.

The alterations and repairs to the str. Modjeska have been practically completed at the yard of the Bertram Engine Works, Toronto, and it is the intention of the Hamilton Steamboat Co. to place her on the Hamilton-Toronto run as soon as navigation opens on Hamilton Bay.

The report that W. Evans, Toronto, Inspector of Hulls for Western Ontario, had been directed to make Collingwood, Ont., his headquarters for the future is incorrect. E. W. McKean, Inspector of Machinery and Boilers, heretofore at Toronto, has, however, had his office changed to Collingwood.

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MANGANESE STEEL CASTINGS

For wearing Parts, Insuring Great Hardness and Durability

INTERLOCKING PLANTS

WORKS AND OFFICE: CANAL BANK, PT. ST. CHARLES, MONTREAL

Ten survey parties are engaged on the survey of the route of what is called the Montreal, Ottawa and Georgian Bay Canal, nine of which have been out since Oct. 27. Each party consists of 16 men, and it is expected that their work will last for a year.

Temagami Lake, about 60 miles north of North Bay, Ont., on the Teniskaming and Northern Ontario Ry., and the adjacent

waterways were opened up for steam navigation by D. O'Connell in 1903. In that year one steamer was operated; in 1904 he had three steamers on the lake, and two more are under construction for the current year's season of navigation.

The Northern Navigation Co.'s str. United Empire has been reinspected by the Canadian, United States and Inland Lloyd's surveyors,



Utility
Touch
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Strength

TRIED AND TRUE

ASK UNDERWOOD USERS



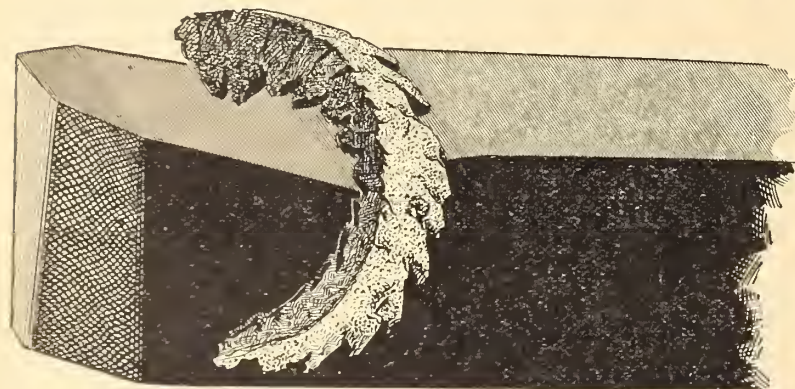
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The JESSOP High-Speed . . . Self-Hardening TOOL STEEL



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Locomotive
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Car Wheel,
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1/4-inch cut,
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Speed 20 to 40
feet per minute.

Tools hardened
by heating
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3 inches to 60 inches diameter

FLEXIBLE AND FLANGE PIPE AND SPECIAL CASTINGS

FOR WATER, GAS, CULVERT AND SEWER
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Note

Where **ILLINOIS CENTRAL RAILROAD COMPANY** has through car service, both Coach and Sleeper and Free Chair Cars,
Chicago to Hot Springs, Ark., St. Louis, Omaha, St. Paul and Minneapolis, Memphis, Tenn., New Orleans, San Antonio, Texas, and all California

in Special Excursion Pullman Cars. Round Trip Tickets to all South and South-west points daily, same to California. Rate same via New Orleans as other direct routes. First and third Tuesdays each month.

Special First-class Round Trip Tickets at one fare plus \$2.00 from Chicago to Home-seekers in South and South-west.

Look The Illinois Central map over and consult

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ALL DAY

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Vestibuled Equipment.

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To New York, Philadelphia, Atlantic City, Baltimore, Washington and the South. The Grand Trunk Railway in connection with the

LEHIGH VALLEY RAILROAD

Forms the Direct Line from Toronto, Hamilton, London and all points in Canada for the above cities.

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The Great double-track scenic highway, stone ballasted, protected by automatic electric block signals. Through Pullman Parlor and Sleeping Car Service. Dining Car Service à la carte. Everything first class. Call on Grand Trunk Ticket Agents for tickets and further information, or address

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Can. Pass. Agent, 10 King Street East, Toronto.

CHAS. S. LEE,
General Passenger Agent, New York.

W. B. WHEELER,
General Agent, Pass. Department, Buffalo, N.Y.

and is to have considerable repairs done to her hull, boiler and machinery. The company's steamers City of Collingwood and Majestic are also undergoing repairs. All the work is being done at Collingwood, Ont., the total expenditure being estimated at from \$25,000 to \$30,000.

It is proposed to straighten the channel of the Otter River at Port Burwell, Ont., by cutting a new one, 400 yards westward through the flats, and filling up the old channel. A breakwater about 800 ft. long will also be constructed, and the east pier lengthened 300 ft. It is expected to get the work completed this year. The object is to improve the entrance to the port for the coal vessels, which are coming there in increasing numbers.

The number of vessels entering the port of Toronto during the season of navigation of 1904 was 3,398, with a tonnage of 1,412,459 tons, against 3,164 vessels of 1,165,289 tons in 1903. The freight carried included 171,503 tons of coal, and 380,250 packages of fruit. There are 72 vessels laid up at the port, including 10 passenger steamers, seven freight steamers, 13 schooners, nine steam launches, nine steam ferries, four tugs, 16 yachts, and four dredges, representing a total of 11,919 tons register.

The report of the directors and statement of accounts of the Muskoka Lakes Navigation and Hotel Co., which were published in our Feb. issue, were passed at the annual meeting of shareholders held in Toronto Jan. 26. Following are the officers and directors for the current year: President, J. S. Playfair; Vice-President, F. J. Phillips; Manager and Secretary, A. P. Cockburn; other directors: Sir John Boyd, G. T. Ferguson, R. K. Burgess, R. A. Lucas, M. S. Wilson. Assistant Manager and Treasurer, M. Wasley; Manager Royal Muskoka Hotel, L. M. Boomer.

The applicants to the Dominion Parliament for the incorporation of the Canadian Canals Corporation to construct a canal or canals, with portage railways to connect the different stretches of water navigation, are: Col. J. I. Davidson, P. Howland, R. C. Steele, A. T. Drummond, of Toronto; T. Burnham, of Chicago, Ill.; T. W. Hugo, of Duluth, Minn.; H. C. Spaulding, New York. They ask for power to issue \$15,000,000 of capital stock. The project is being primarily promoted by H. C. Spaulding, a New York engineer, who has designed the special carriage for the vessels, which he proposes to haul along the portage railways on eight

tracks. The York County Council has had the bill before it, and decided to oppose its passage through Parliament.

The Polson Iron Works (Ltd.) has been incorporated under the Dominion Companies' Act with a capital of \$1,000,000 and offices at Toronto, for the purpose of carrying on the business of shipbuilders, shipowners, contractors and builders of ships and dredges, also to carry on the business of builders and manufacturers of all kinds of machinery, engines and boilers; to acquire the business now carried on by the Polson Iron Works; to acquire or hold stock in other businesses of a similar nature, and with all necessary powers to carry on the business. The provisional directors are: A. H. Jeffrey, Assistant Manager Polson Iron Works; W. B. Tindall, accountant; J. J. Main, boiler superintendent; Mrs. B. S. Polson, wife of F. B. Polson, manufacturer; Mrs. J. Miller, wife of J. B. Miller, lumber merchant, all of Toronto.

A despatch to Toronto daily papers, dated Collingwood, Ont., Jan. 30, stated that the first annual meeting of shareholders of the steamer City of Windsor was held there on Jan. 26, that a dividend of 10% was declared; that \$779.59 balance of net earnings was carried forward to credit of contingent account, that the following board was elected:—President, C. Cameron; Vice-President, J. K. McLaughlin; Secretary-Treasurer, T. Long; Manager, P. M. Campbell; that the question of increasing the company's tonnage was discussed, and that the Manager was instructed to examine the several steamers that were offered for sale and to report to the board. From the despatch above quoted it might be inferred that the owners of the boat had been incorporated as a joint stock company, but this does not appear to be the case. The City of Windsor is said to have been purchased from the Algoma Navigation Co. for about \$3,000 or less. Possibly \$1,200 or \$1,500 was spent in repairing her, and the total investment is believed to be under \$5,000.

Manitoba and Northwest Territories.

The Hudson's Bay Co. has purchased the Antarctic exploration ship Discovery, now at London, Eng. When altered for her new work, the Discovery will proceed to Hudson's Bay.

The Stork, the Hudson's Bay Co.'s trading steamer, left Hudson's Bay for London, Eng., with a cargo of furs in the fall of 1904, and

has not been heard of since. A premium of seventy guineas per cent. has been paid for re-insurance. It is believed that the Stork was caught by the ice in the Straits and has been unable to get free.

The Nelson River Packing Co. (Ltd.) has been incorporated under the Dominion Companies' Act, with a capital of \$40,000 and offices at Selkirk, Man., with power among other things to acquire and operate steam and other vessels, and to construct wharves, docks, etc. The provisional directors are: J. K. McKenzie, R. Smith, of Selkirk, Man.; C. H. Newton, Jas. Fisher, and A. C. Ewart, of Winnipeg, Man.

B.C. and Pacific Coast Shipping.

Capt. W. Rogers has been appointed harbor-master at New Westminster, B.C.

The Victoria Machinery Depot Co., Victoria, B.C., has secured the contract to repair the British str. Haddon Hall, which was recently stranded on the South American coast.

The Wellington Colliery Co. has chartered the Norwegian str. Tricolor, 6,000 tons d.w. capacity, for its coal carrying trade between Nanaimo, B.C., and San Francisco. The company has now five vessels in its colliery fleet.

The str. Boscowitz, which was wrecked on Harbleton Island, was sold for \$300 as she lay. The vessel was patched up and towed to Victoria, B.C., where she was repaired. The renovated steamer has been sold to J. C. Emerson, of Vancouver, for \$5,000.

McKenzie Bros. are having a large barge built at Vancouver for carrying coke between Comox, B.C., and the smelter at Prince of Wales Island, off the Alaskan coast. The barge will be 200 ft. long, 40 ft. wide, and will have a depth of hold of 11 ft. 6 in.

The New England Fish Co.'s str. Columbia, valued at \$25,000, struck on a submerged rock off North Island, B.C., recently, and sank in 150 fathoms. The steamer was originally known as the Saga, arrived in the Pacific Ocean in 1898, and was the cause of a lot of litigation until she passed into the hands of the New England Fish Co. in 1902.

The Alaska Steamship Association, of which the C.P.R., the Pacific Coast Steamship Co., the Alaska Steamship Co., and the Humboldt Steamship Co. are members, met at Seattle, Wash., recently, and arranged rates and schedules for the ensuing season.

The Hudson's Bay Company



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Farming and Grazing Lands in Manitoba and the Northwest Territories

ON EASY TERMS OF PAYMENT

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Transportation by the Company's Steamers, brigades of boats and canoes throughout the Territories not traversed by railways.

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BROWN OR BLACK

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Is the only white pigment that holds its color in marine or railway work—therefore OXIDE OF ZINC is the only available pigment for white or tints on ships or boats or on railways.*

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THE BRADSTREET COMPANY gathers information that reflects the financial condition and the controlling circumstances of every seeker of mercantile credit. Its business may be defined as of the merchants, by the merchants, for the merchants. In procuring, verifying and promulgating information, no effort is spared, and no reasonable expense considered too great, that the results may justify its claim as an authority on all matters affecting commercial affairs and mercantile credit. Its offices and connections have been steadily extended, and it furnishes information concerning mercantile persons throughout the civilized world.

Subscriptions are based on the service furnished, and are available only by reputable wholesale, jobbing and manufacturing concerns, and by responsible and worthy financial, fiduciary and business corporations. Specific terms may be obtained by addressing the Company at any of its offices.

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Montreal, Que.	Ottawa, Ont.	Quebec, Que.
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		Winnipeg, Man.

THOS. C. IRVING,

Gen. Man. Western Canada, Toronto.

New Cars on The Overland Limited

Two new composite-observation cars have just been placed in service on The Overland Limited between Chicago and Omaha, by the

Chicago, Milwaukee and St. Paul Railway

The Overland Limited leaves Union Passenger Station, Chicago, 6.05 p. m. Arrives Omaha 7.35 a. m., and Denver 10.00 p. m. the next day, and San Francisco the third day in time for dinner.

A. J. TAYLOR,

Canadian Passenger Agent,
 8 King St. E., Toronto, Ont.

The Canadian Pacific Railway Company.

Dividends for the half year ended December 31st, 1904, have been declared as follows:

On the Preference Stock two per cent.

On the Common Stock three per cent.

Warrants for the Common Stock dividend will be mailed on or about April 1st to Shareholders of record at the closing of the books in Montreal, New York and London respectively.

The Preference Stock dividend will be paid on Saturday, April 1st, to Shareholders, of record at the closing of the books at the Company's London office, No. 62 Charing Cross, London, S.W.

The Common Stock Transfer Books will close in Montreal, New York and London, at three p. m., on Wednesday, March 1st. The Preference Stock Books will also close at three p. m. on Wednesday, March 1st.

All books will be re-opened on Monday, April 3rd.

By order of the Board,

CHARLES DRINKWATER,

Montreal, February 13th, 1905.

Secretary.

H. S. BURKHARDT, Pres.

E. B. LEICH,

Vice-Pres. & Gen. Mgr.

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I. A. YOUNG,

AGENT

No alterations were made in the rates, and it was stated that the same steamers would be run as in 1904.

The Victoria, B.C., Board of Trade is urging the necessity of increasing the dry dock accommodation on the coast. The limited dimensions of the present dock are held to militate against the shipping interests of the port, and the construction of a larger dock is urged. It is also suggested that the dock at Esquimalt be enlarged, and a resolution has been passed asking the Dominion Government to take steps to have the work done.

A special sitting of the Supreme Court was held at Ottawa, Feb. 21, at which a number of points in connection with the act respecting ferries were argued, under a reference from the Government.

The Australian Government has declined to pay £140,000 a year for carrying mails to Great Britain, and it is understood that negotiations are to be opened with the Dominion Government for the conveyance of the mails via Vancouver, B.C.

The total number of casualties to British and Canadian seagoing vessels in Canadian waters for the year ended June 30, 1904, was 192, representing a tonnage of 81,143 tons register, with a total loss of \$489,699. The number of lives lost was nine. The number of casualties to inland vessels in the same period was slight and unimportant.

A bill has been introduced in the Senate at Washington, U.S.A., providing that no merchandise shall be transported by water from one port of the United States to another,

either directly or by way of a foreign port, or for any part of the voyage, in any other than a U.S. vessel. It also provides that the measure shall not apply to foreign vessels carrying merchandise on the Yukon River and its tributaries.

While according to the last list of shipping issued by the Department of Marine, the M.S. Dollar of Victoria, B.C., 4,216 tons gross, was the largest steamer borne on the Canadian register, the new list, dated Dec. 31, 1904, but not yet issued, will contain the registration of the Richelieu and Ontario Navigation Co.'s str. Montreal, having a gross tonnage of 4,282.23 tons, thus making her the largest steamer borne on the Canadian register. The Montreal was built and owned in Canada, whereas the M. S. Dollar was built in Great Britain, and is owned in the U.S.

The total number of light stations, light-ships and fog alarm stations in the Dominion on June 30, 1904, was 796, and of lights shown 996; the number of steam whistles, fog horns, bells and guns, 99; the number of light-keepers and engineers of fog alarms with masters of lightships was 783. There are about 4,300 buoys, marking shoals, reefs, and other dangers to navigation. In addition to these buoys there are maintained 106 gas buoys, showing, in general, occulting lights. There are 27 life-saving stations in the Dominion.

The officers of the Association of Passenger Steamboat Lines, which was formed at Buffalo, N.Y., recently are: Chairman, G.A. White, Assistant General Manager, Hudson River Day Line, New York; Secretary and

Treasurer, W. F. Herman, General Passenger Agent, Cleveland and Buffalo Transit Co., Cleveland, Ohio; Executive Committee: T. F. Newman, General Manager C. and B.T. Co., Cleveland, Ohio, chairman; C. F. Gildersleeve, President Lake Ontario and Bay of Quinte Steamboat Co., Kingston, Ont.; J. C. Evans, Western Manager, Erie and Western Transportation Co., Buffalo, N.Y.; F. C. Cruger, Manager Northern Steamship Co.; B. W. Parker, General Manager White Star Line, Detroit, Mich.; F. C. Reynolds, Traffic Manager Pere Marquette Line of Steamers, Milwaukee, Wis.; A. Fletcher, Vice-President People's Line Steamers, New York.

A bill is before the House of Commons providing for making some changes in the regulations respecting the qualifications of masters and mates, and the granting of certificates to them. It is proposed that no person shall be entitled to present himself for examination for master until he has obtained a certificate of competency as mate, and has served as such for at least twelve months; and that no person shall be entitled to present himself for examination as mate until he has served as wheelman for two years. There are some other minor alterations, one of which provides for the cancellation of the certificate of any master or mate who renounces his allegiance to the British Crown. In connection with the appointment of examiner of masters and mates, it is proposed to provide that no person shall be appointed an examiner in respect of masters and mates of ships trading on inland waters unless he himself is a competent lake navigator and has a certificate to that effect.

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Canada Atlantic Railway Elevator, Coteau Landing, Que.....	"	500,000 "
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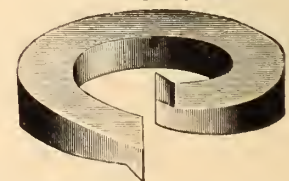
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An act providing for the amending of the Steamboat Inspection Act, 1898, has been given a second reading in the House of Commons, and has been referred to a special committee. The bill provides for the widening of the inspection provisions of the act, the proposed new clause being: "No steam yacht used exclusively for pleasure or private use without hire or remuneration of any kind, and no steamboat having an engine under five horse-power, shall be subject to the requirements of this act." In section 33, regarding the qualification of engineers, it is proposed to amend sub-section 12, which deals with the application of any person qualified by his knowledge of steamboat machinery who may be given a temporary certificate as engineer of a passenger steamer having engines of 4 n.h.p., if single cylinder, and 9 n.h.p. if compound type. The proposed amendment is to strike out the words "any applicant," and to make it read "any fourth engineer." This latter clause is one which affects primarily the owners of steamers on the minor inland waters, who are in favor of a widening rather than a narrowing of the ranks from which engineers of small boats can be drawn.

Among the Express Companies.

The Western Ex. Co. has opened offices at Hubbell, and Matchwood, Mich.

The Dominion Ex. Co. has opened offices at Kenaston (formerly Bonnington), Kronau, Lajord, Oyama, Richardson, Sedley, Tantallon, Togo, Assa.; Cobalt, Dunsford, Oxford, Ont.; Bouchette, Iberville Jct., Que.

The B.C. Express Co. recently made a delivery of a 2,000 lb. iron shaft to the La Fontaine Mine, the trip from Ashcroft, B.C., taking about four days. The charges on the shaft from Toronto to Ashcroft were about \$200.

The Canadian Ex. Co. is arranging to extend its service throughout Prince Edward Island. At present the service extends only to Charlottetown, the P.E.I. Ry. operating an express service, which is to be turned over to the Canadian Ex. Co.

The Alaska Pacific Ex. Co. will carry express matter to Fairbanks and Chena, Alaska, on the steamers of the Valdez Transportation Co., which also carry the United States mail. This route will close April 15, after which Fairbanks and Chena cannot be reached until the opening of navigation on the Yukon River.

We are advised that the Maritime Ex. Co., which was recently granted a Dominion charter of incorporation, will probably confine its operations to the Dominion Atlantic Ry. and connecting railway and steamship lines. The express business on the D.A. Ry. and steamship lines has hitherto been carried on by the Maritime Ex. Co., a Nova Scotia company.

Express officers generally have been notified that the Canadian Customs insist on the provisions of the law regarding invoices being carried out to the letter. It is necessary that two invoices, with proper certification, showing both the American and the Canadian prices in actual figures, must accompany each shipment destined to a point in Canada, as it will be impossible to make an entry without these invoices.

At the eighth annual dinner of the Montreal employees of the Dominion Ex. Co., held Feb. 4, V. G. R. Vickers, Superintendent of the newly created Atlantic division, presided. It was stated that the company now had 2,500 employees, and operated its service over 15,000 miles of railway. W. A. Clarke who succeeded Mr. Vickers as general agent at Montreal, was presented by the staff with a six-foot rubber plant, to which was attached a collection of rubber stamps for all purposes.

Telegraph and Cable Matters.

The C.P.R. Telegraph Department has opened offices at Balcarres, Lemberg, Assa.; Stavely, Alta.

The G.N.W. Telegraph Co. has opened offices at Niagara Falls Centre (Victoria Park Station), Ont., and at Kiskisink, Que.

The C.P.R. Telegraph Department, it is reported in Nova Scotia, has decided to extend its line from Halifax to Yarmouth, along the line of the Halifax and South-Western Ry.

The C.P.R. Telegraph Department has received permission from the Montreal City Council to lay conduits on St. Antoine, Inspector, and Lagauchetiere streets for its wires.

The Saskatchewan Herald of Jan. 26, 1880, contained the following paragraph: "The western terminus telegraph office was moved in on the 18th, the office put in shape, and a message got through to Winnipeg on the 21st."

The Direct West Indian Cable Co., which connects Halifax, N.S., and the Bermuda Islands with the West Indies, has offered to the British Government to lay a cable from Bermuda to Barbados and other islands and join it with the present cable at Kingston, Jamaica.

The vote of \$100,000 which the Dominion Parliament is asked to pass at its current session for wireless telegraph plants will cover the installation of stations at several points on the British Columbia mainland and Vancouver Island. When this work is completed the C.P.R. Pacific liners will have wireless telegraph apparatus installed on board.

The C.P.R. Telegraph tariff book for 1905 contains 25 more pages, and shows the names of 1,094 more places than the 1904 book. It also shows that the C.P.R. Telegraph and its connections maintain exclusive offices in 1,921 places not reached by any other telegraph company. The C.P.R. Telegraph system handles business for 21,071 places.

The new agreement between the Dominion Government and the Anglo-American Telegraph Co., for the cable service between Prince Edward Island and the mainland is binding for five years, the amount of subsidy being \$5,000 a year. In return for the increased subsidy, it was recently stated in the House of Commons that there had been a reduction in telegraph rates. We have already published details of these reductions.

The Anglo-American Telegraph Co. has protested against the establishment of wireless telegraph stations on Prince Edward Island, either for communication with the mainland of Nova Scotia and New Brunswick or with the Government steamers Stanley and Minto. The Premier, in reply to a recent question in the House of Commons, said the Government did not recognize these protests, it being contrary to their policy.

The C.P.R. Telegraph Department is contemplating making extensive additions to its lines in Manitoba and the Northwest Territories during the current year. A large additional mileage of wire will be strung on existing lines to meet the demands of the increasing business; new lines are to be strung along the recently completed railway lines, and it is also expected that a new direct connection will be opened with the U.S., via St. Paul and Chicago, along the line of the Minneapolis, St. Paul and Sault Ste. Marie Ry., recently completed to Emerson, at the International boundary.

The decision in the arbitration proceedings between the Government of Newfoundland and the Reid Newfoundland Co., in which the latter claimed about \$3,500,000 damages in respect of the taking over by the

Government of the telegraph service of the colony, was announced at St. Johns, Nfld., Feb. 3. The arbitrators, P. S. Archibald, C.E., Moncton, N.B., appointed by the Supreme Court; Hon. E. Blake, M.P., K.C., London, Eng., appointed by the Newfoundland Government, and D. MacMaster, K.C., Montreal, appointed by the Reid Newfoundland Co., came to a unanimous finding in Toronto, Jan. 14, and signed the award, which it was agreed was not to be made public until Feb. 3. They decided that the Reid Newfoundland Co. is entitled as compensation for the loss and damage sustained to \$1,503,100 with interest from Oct. 1, 1903, at the rate of 3%, and that the expenses of the third arbitrator and the general expenses of the arbitration shall be borne equally, and each party shall remunerate its own arbitrator.

The new schedule of pay for dispatchers and operators on the C.P.R. Eastern Lines which went into effect recently provides for advances varying from \$2 to \$10 a month. On the main lines east of Chalk River, first year dispatchers will get \$100 a month, with an increase of \$5 for the second and \$10 for the third years. On the branch lines, first year dispatchers are to receive \$90, with increases as above. West of Chalk River, the scale is \$105, \$110 and \$120 for the three years, while for White River and west it is \$110, \$115 and \$125. For telegraphers other than train dispatchers and linemen, \$45 will be the minimum for agents and operators on the main line east of Chalk River, with \$43 on branch lines, with dwelling, light and fuel included. Without these latter, the minimum will be \$50 and \$48 respectively. Telegraph operators will not get less than \$45 on the main line and \$43 on the branches, while the minimum for linemen on both main and branch lines is \$55. West of Chalk River \$47 is the least for an agent and operator, and west of Cartier \$53, with, in each case, the added items above referred to. Without them the minimum is \$52 and \$58 respectively, and for telegraph operators \$47 and \$53. Linemen in either of the two districts will receive \$60 as the lowest. Train dispatchers will be allowed three weeks' vacation yearly, and other telegraphers of four or more years' service two weeks. The revised salary scale for relieving telegraphers shows a substantial advance. The revision of the schedule on the Western is being discussed with the officials at Winnipeg.

New Construction Companies.—The following new general contracting companies have been incorporated under the Dominion Companies' Act:—British Canadian Supply Co., with offices at Montreal, and a capital of \$50,000, the provisional directors being: Watson Jack, J. W. Harris, R. C. Smith, K.C., W. B. Powell, R. C. Grant, of Montreal. Canadian Builders (Ltd.), with offices at Toronto, and a capital of \$1,000,000, the incorporators being: G. P. Magann, W. H. Blake, J. Mackay, Toronto; J. C. Stewart, New York; C. F. Franson, Pittsburg, Pa. Standard Construction Co. (Ltd.), with offices at Ottawa, and a capital of \$1,000,000, the incorporators being: E. J. Chamberlin, railway manager; J. W. Smith, railway official; C. J. R. Bethune, barrister-at-law; G. E. Fauquier, contractor; H. Christin, bookkeeper, Ottawa. The Richelieu Construction Co. has been incorporated under the Ontario Companies' Act to carry on a general contracting business, and to promote and assist financially the undertakings of other corporations. The offices of the company are in Toronto, its capital is \$200,000, and the provisional directors include F. Denton, barrister-at-law, Toronto, and law students and others connected with his office.



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General Telephone Matters.

Neepawa, Man., owns its telephone service, the cost being \$10 a year per instrument.

The Canadian Press Association has passed a resolution favoring government ownership of telephone and telegraph lines.

The New Brunswick Telephone Co. is applying for a supplementary charter authorizing an increase of capital stock from \$250,000 to \$600,000.

The Crow's Nest Pass Electric Light and Power Co., a subsidiary of the Crow's Nest Coal Co., operates a telephone system in Fernie, B.C.

A report is current that the Bell Telephone Co. will shortly absorb the Merchants' Telephone Co., of Montreal, and in connection with the purchase will issue additional stock.

The work of installing the underground cables of the Canadian Machine Telephone Co., at Peterboro', Ont., has been completed, and most of the pole lines have been finished.

The Montreal City Council has submitted a series of questions to its legal advisers having reference to certain points in its contract with the Bell Telephone Co. The principal point has reference to the installation of slot machines.

The International Telephone Co. has been registered in British Columbia as an extra-provincial company. The company's head offices are at Bellingham, Wash., and the B.C. office is at Vancouver, W. Farrell being its attorney. The capital to be employed is \$50,000.

The private telephone line operated along the Westmoreland county shore from Shediac, N.B., has been extended to Cocagne, and three public pay stations have been established on the extension. The New Brunswick Telephone Co.'s exchange at Shediac is used by a mutual arrangement.

One of the four telephone exchanges of the Merchants' Telephone Co., Montreal, was burned out, Feb. 2, the connections of about 800 lines being destroyed. A partial service was given at the company's other exchanges, pending the installation of a new exchange on Vitre St., near the scene of the fire.

The Markham and Pickering Telephone Co. has been incorporated under the Ontario Companies' Act, with a capital of \$40,000 and offices at Whitevale, Ont., to carry on a general telephone business in the counties of York, Ontario, and Durham. The provisional directors are: A. Hoover, D. R. Beaton, of Pickering; A. C. Reesor, of Markham, Ont.

The Scarborough Telephone Co. has been incorporated under the Ontario Companies' Act, with a capital of \$40,000 and offices at Scarboro, Ont., to carry on a telephone business in the counties of York and Ontario. The provisional directors are: A. and J. Neilson, D. Brown, of Scarborough township; T. A. Young, Markham, Ont., and W. Mulock, Jr., Toronto.

The Bellechasse Telephone Co., of Levis, Que., will apply next session of the Quebec Legislature for an act increasing its capital to \$250,000, with power to further increase it to \$1,000,000. The company desires to have its powers extended so as to permit it to manufacture and sell telephone apparatus; to invest in securities of other similar companies. T. M. W. Pampalon, Quebec, is acting for the company.

The Manitoba Legislature has declined to accede to an application for an act to incorporate the Independent Telephone Co., in that province, with very extensive powers. In connection with the defeat of the application it was announced that the Government would, during the current year, make a

thorough investigation into the telephone problem with a view of the Province undertaking the establishment and operation of telephone lines.

The Burrard Inlet Telephone Co., which has a provincial charter enabling it to construct telephone lines within British Columbia started in to dig holes in the streets at Fernie, in which to put the poles recently. Some citizens objected, and the company's superintendent was fined \$10. The company obtained an injunction to restrain the local authorities from further interference. The citizens rather favor a local system, and are assisting local people, operating at Hammond and Turner, with a view of their obtaining a franchise.

The new construction work planned by the Bell Telephone Co., in Manitoba and the Northwest Territories, includes the following long distance lines:—Portage la Prairie to Neepawa, via Gladstone, Man.; Brandon to Rapid City, Man.; Virden to Moosomin, Man.; Winnipeg to Portage la Prairie, Man.; Winnipeg to Carmen, Man.; Winnipeg to Glenboro, Man.; Killarney to Deloraine, Man.; Carberry to Brandon, Man.; Morden to Pilot Mound, Man.; and Regina to Indian Head, Assa. The work involves the establishment of local exchanges and toll offices on the new lines to be opened up.

Petitions have been presented to the Dominion Parliament asking for the passing of an act to prevent telephone companies from erecting poles or constructing conduits on the streets or roads of any municipality in Canada without the consent of the council thereof, on behalf of the following municipalities: Tweed, Ont.; Irberville, Que.; Nanaimo, B.C. In connection with this movement a deputation representing Montreal, Ottawa, Toronto, Hamilton, London, Winnipeg, and other places in the Dominion waited on the Government with a view of urging the necessity for the passing of such an act.

The Central Telephone Co., according to the annual report recently presented to the shareholders, has 156 miles of line in operation, reaching 39 different points in Kings and Queens counties, N.B. The company has under consideration a proposal to obtain a special act of incorporation next session of the New Brunswick Legislature, and is planning further extensions of its lines. The officers and directors for the current year are:—President, T. H. Estabrooks, St. John; Vice-President, S. H. White, Sussex; Secretary-Treasurer, H. P. Robinson, Sussex; other directors: J. M. Scovil, Hon. W. Pugsley, St. John; G. W. Fowler, Sussex; G. W. Ganong, St. Stephen.

The Northwest Telephone Co. is the title under which E. Brown, T. H. Metcalfe, of Portage la Prairie, Man.; J. Tees, H. E. Sharpe, G. Bowles, G. A. Metcalfe, of Winnipeg, Man., are applying for incorporation at the current session of the Dominion Parliament. The object of the company is to construct, maintain, and operate telephone and telegraph lines in Ontario, Manitoba, and the Northwest Territories; to acquire local lines, and for other purposes. The proposed capital is \$100,000. The application is being opposed in the Private Bills Committee, and it was suggested that the bill should be held over so as not to embarrass the Manitoba Legislature in its investigation into the telephone question.

The growth of the Bell Telephone Co.'s system has been faster in Winnipeg than in any other city in Canada, and notwithstanding the last changes, which involved the addition of a new storey to the company's building, the installation of a central energy switchboard with a capacity of 3,500 lines, and the practical rebuilding of the entire system, with the replacing of the magneto

sets then in use with those of common battery type, still further additions have been found necessary. The building has been practically doubled in size, and there is now being installed a new switchboard with an ultimate capacity of 10,000 lines, which entirely replaces the old one. When the new switchboard is installed the lines will be transferred to it, and the present switchboard will be entirely dismantled and removed.

PURCHASING AGENTS' GUIDE.

(Continued from third page of Cover.)

Cement Machinery	Jas. W. Pyke & Co. Montreal.
Coal Haulage Ropes	The B. Greening Co. Hamilton, Ont.
Concrete	Thorn Cement Co. Buffalo, N.Y.
Concrete Mixers and Rock Crushers	F. H. Hopkins & Co. Montreal. W. H. C. Mussen & Co. Montreal.
Conduit Contractors	F. T. Ley & Co. Springfield, Mass.
Contractors	F. T. Ley & Co. Springfield, Mass.
Contractors' Plant	F. H. Hopkins & Co. Montreal. T. A. Morrison & Co. Montreal. W. H. C. Mussen & Co. Montreal.
Conveyor Belts, Rubber	The Gutta Percha & Rubber Mfg. Co. of Toronto.
Corrugated Furnaces	Continental Iron Works. Brooklyn, N.Y.
Cross Arms, Top Pins & Slide Blocks	Canadian General Electric Co. Toronto. The Firstbrook Box Co. Toronto.
Cross Arm Braces	Canadian General Electric Co. Toronto. Toronto Bolt and Forging Co. Toronto.
Crossing Gates	General Railway Signal Co. Buffalo, N.Y. The N. L. Piper Railway Supply Co. Toronto.
Crowbars	Toronto Bolt and Forging Co. Toronto.
Culvert Pipe (Cast Iron)	Gartshore-Thompson Pipe & F'dry Co. Hamilton.
Cuts	Acton Burrows Co. Toronto.
Derrick Ropes	Dominion Wire Rope Co. Montreal. The B. Greening Co. Hamilton, Ont.
Derricks	F. H. Hopkins & Co. Montreal. W. H. C. Mussen & Co. Montreal.
Diving Outfits	W. H. C. Mussen & Co. Montreal.
Door Signs	Acton Burrows Co. Toronto.
Drawing Materials	Eugene Dietzgen Co. New York.
Dredges	The Bertram Engine Works Co. Toronto.
Drilling Machines	The John Bertram & Sons Co. Dundas, Ont.
Drills	W. Abbott Montreal.
Dry Goods	The Hudson's Bay Company.
Dynamo and Electric Castlugs	American Brake Shoe & F'dry Co., Mahwah, N.J.
Economizers	Babcock & Wilcox (Ltd.) Montreal.
Electric Car Fenders	The G. B. Meadows Wire, etc., Co. Toronto.
Electric Car Route Signs	Acton Burrows Co. Toronto.
Electric Car Wire Guards	The G. B. Meadows Wire, etc., Co. Toronto.
Electric Cranes	Canada Foundry Co. Toronto. Dominion Bridge Co. Montreal. W. H. C. Mussen & Co. Montreal.
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Electric Railway Builders	F. T. Ley & Co. Springfield, Mass.
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(Continued on page 131.)



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(Continued from page 129.)

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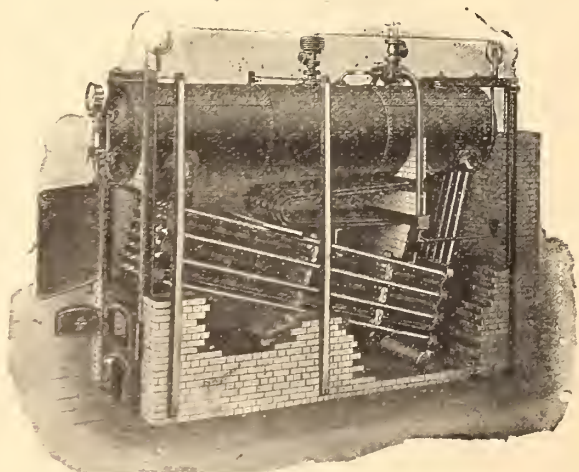
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(Continued on page 129.)

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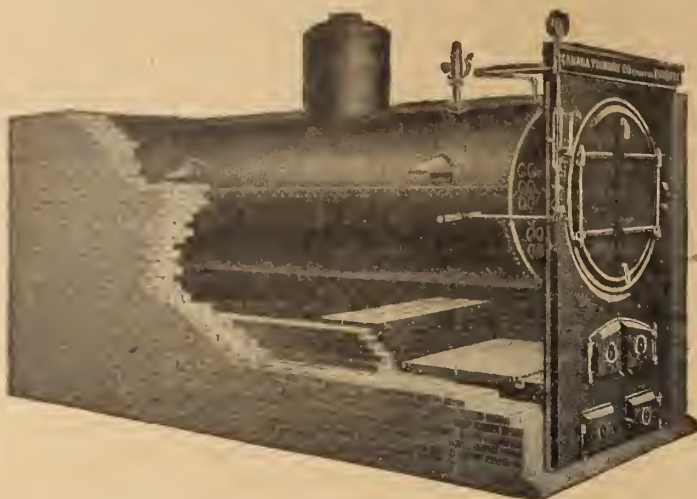
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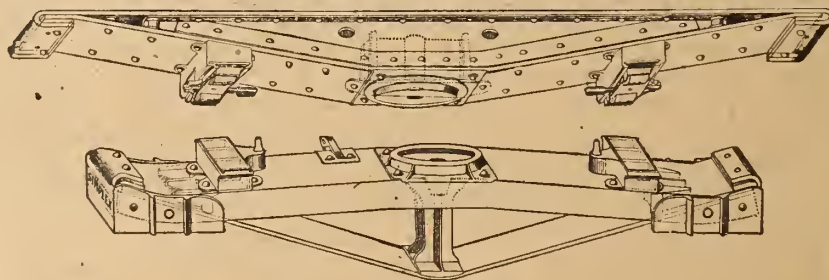
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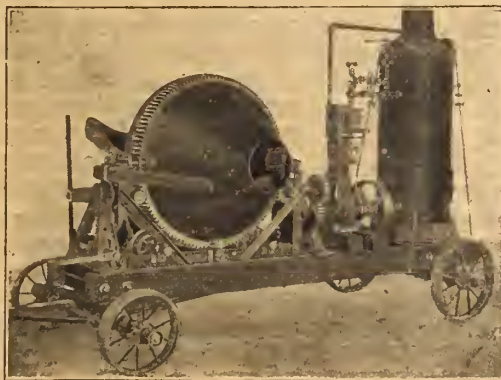
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TORONTO, CANADA, APRIL, 1905.

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Mutual Benefit Associations

By W. G. Ross, Managing Director Montreal Street Railway.

The formation of mutual benefit associations among the employes of large railway and industrial companies, started within the last few years, has proven very successful from the point of view of the employes as well as the employer, for the reason that the object of such associations is to better the general condition of the employes and in so doing improve their standard and create a better feeling between them and the management. This, I consider, is essential to the proper management of a company, particularly street railways, which, being public service corporations, are continually in touch with the public, and when the public know that the management of a company is looking after the needs of its employes, their general attitude is materially different in times of trouble. You will agree that this in itself is worth attention, also that the success of a street railway depends to some extent upon its popularity with its employes and the general populace which it caters to.

The introduction of the employes' mutual benefit association in Canada was brought about in 1884, when the Grand Trunk Ry. Co. established, under the provisions of several acts of Parliament, the G.T.R. Insurance and Provident Society. The objects of this Society are, to provide benefits or allowances to members unable, through sickness or bodily injury, to follow their usual occupation in the company's service; and to assist the legal representatives of deceased members. All except salaried employes, who contribute to a special superannuation fund of the company, are compelled to join, paying monthly contributions, the company paying an amount equal to 50% of the amount paid in by the members. The management of the Society is controlled by a board of directors, composed of an equal number of officials and employes, the latter of whom are elected by members of the Society. The G.T.R. Company experienced some trouble in the first few years of its organization in getting the employes to join, principally owing to the fact that they were not thoroughly conversant with the many advantages to be obtained, but now that they have familiarized themselves with the many benefits from membership in the Society, it has turned out a complete success.

The Canadian Pacific Ry. Co. organized, within the last few years, a pension fund for its employes. It has no society to provide allowances for its employes in case of disablement, either through sickness or bodily injury.

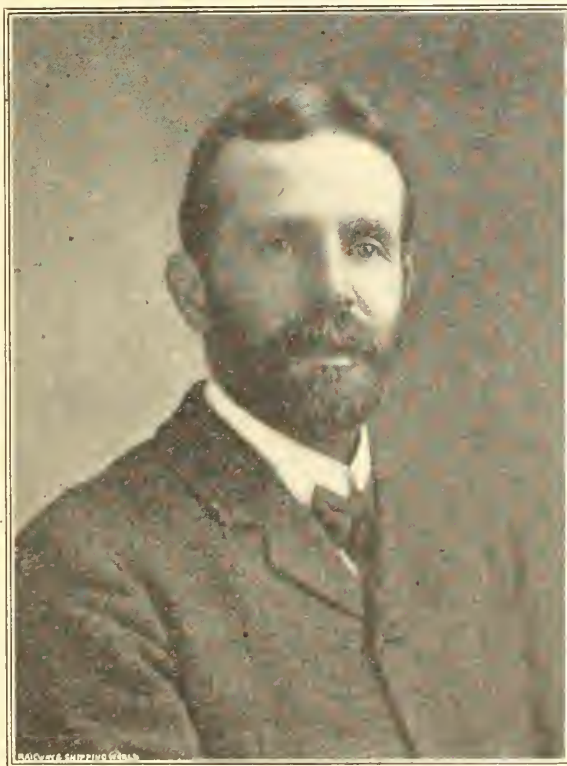
In the spring of 1903 the writer suggested

the formation of a mutual benefit association among the employes of the Montreal Street Ry. Co., and in Aug., 1903, the company requested the employes to elect two of their number from each of the various departments to meet the officials of the company, to discuss the advisability of forming such an association. This meeting took place at the head office of the company on Aug. 17. Rules and by-laws were drawn up and proofs distributed to the representatives of the men for careful consideration and discussion among their fellow-employes, the meeting then adjourning until Aug. 20 to give the men time

time to explain to their fellow-employes the objects of the association and enrol applicants for membership. Forms of application, rules and by-laws, in the English and French languages, were at once printed and in the short period of two months the membership of the association had reached 600. Since then the membership has increased, until to-day it has reached the 1,500 mark, or about 80% of the total number of employes.

The objects of the Montreal Street Railway Mutual Benefit Association are to afford relief to such employes of the Montreal Street Ry. Co. and the Montreal Park & Island Ry. Co., as may become members of the said association; by providing allowances, medical attendance and medicine to members when incapable of following their usual vocation in the service of the companies, by reason of illness or bodily injury; by providing a pension for old and disabled members, and by providing allowances in case of death to the representatives of the deceased members. Members, upon admission, pay \$1 as initiation fee, and thereafter 50c. a month, for which they receive in cases of disablement for sickness and bodily injury, 60c. a day, including Sundays, for the first 90 days, and 30c. a day, including Sundays, for the next 90 days, including medical attendance and medicine. In cases of sickness the payment starts from the seventh day of illness, no payment being allowed for the first six days and monthly dues are not exacted during disablement. Members over 65 years of age, and having served in the company's employ for 25 years, are also entitled to a pension for life at the rate of 50c. a day, or may commute the daily payment for an immediate payment of a total sum, provided that if the employe temporarily, at any time thereafter, shall return to work or engage in any other work, at a rate of daily wages exceeding 50c., the payment of the pension shall be suspended during the continuance of such re-employment or period of actual work. Upon the death of a member, from whatever cause, \$500 is paid, providing the deceased member was under 40 years

of age when admitted to membership; \$333.33 when between the age of 40 and 50, and \$166.66 when 50 years and over. In addition to the above sum \$50 is allowed to cover funeral expenses. Leaving the service of the companies severs membership and no member leaving during the first five years of his membership in the association has any claim to insurance benefits or refunds, or a refund of any fees paid during such membership. After five years and up to ten, members severing membership are



W. E. FOWLER,
Master Car Builder, Canadian Pacific Ry.

to consider the same. On the latter date all the representatives were present, as well as the officials of the company, and after reading the clauses, the rules and by-laws were passed, as amended, and a temporary board of directors was elected, composed of four members elected by the directors of the company, and four elected by the representatives present, with the General Manager of the company as chairman. The newly elected board then elected a Secretary-Treasurer and Medical Officer, and in order to expedite matters, ten of the representatives were instructed to devote their whole

(Continued on page 137.)

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accepted.

FREDERIC NICHOLLS, President

Toronto, 16th March, 1905

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Mutual Benefit Associations.*(Continued from page 133.)*

allowed a refund of one-third of the fees paid during membership. After ten years members are allowed a refund of two-thirds, without interest in every case. Any amount paid to such members for benefits during membership is, however, deducted from the refunds. The Montreal Street Ry. Co. and the Montreal Park & Island Ry. Co. jointly contribute to the funds of the association a sum annually equal to 100% of the annual amount collected from members as admission fee, and 50% of the annual amount collected for monthly dues, and in addition furnish necessary office accommodation and defray all other expenses of management.

From the above, you will admit that the benefits to be derived by being a member are numerous and inviting to the employees, yet when one considers that the association was formed immediately after a general strike and that the employees were more or less suspicious, one can realize to some extent the labor experienced in bringing the same to a successful issue. This, however, was accomplished by conscientious work on the part of the company and the men. Under the powers of incorporation, granted in May, 1904, the board of directors was increased from 9 members to 15, of which 8 are elected by the directors of the Montreal Street Ry. Co., and 7 by the members. The increase in the directorate allows the various departments to have a representative upon the board, which prevents jealousy existing among the employees of the various departments. Meetings of the board are held monthly, at which a statement of the revenue and expenses for the previous month, the benefit claims and other bills paid, as well as all applications for admission are submitted for approval, and all other matters of interest to the association are taken up and discussed. The annual meeting is held in June in each year, and after the usual business is transacted, a smoking concert is held, the talent being selected from the members present. During the course of last year a picnic under the auspices of the association was held at one of our leading parks, lasting for four days, and netted a profit, in spite of the unsatisfactory weather conditions, of \$1,361.88. During the month of January, through the courtesy of the Montreal Street Ry. Co., the members and their families were given a theatre day, each member receiving two tickets and the necessary transportation tickets, in order to attend the entertainment without expense. This proved a great success and was very much appreciated by the members. These acts of kindness and attention on the part of the company have greatly assisted in the good results obtained. The members who, as I said before, represent over 80% of the total number of employees, feel that they are being considered and are in consequence interested in the welfare of the association.

During the period of 16 months the association has paid out the following amounts, which go to show the great necessity for such an association: Sickness and injury claims, \$6,866.85; death and burial, \$3,517.67; medicine, \$384.78; medical examination, \$971.50; medical attendance, \$1,385.21; total, \$13,116.01.

The revenue from all sources for the same period has been as follows:

From members	Fees	\$1,657.00	
	Dues	8,749.00	
			\$10,406.00
From Company	Fees	1,657.00	
	Dues	4,374.50	
		\$ 6,031.50	
Special Donations		6,000.00	
			12,031.50
Picnic		1,361.88	
Interest		97.01	
			1,458.89
			\$23,896.39

leaving a surplus for 16 months of operation of \$11,780.35. In addition to the company's contribution of \$12,031.00, the expenses of management and organization for the same period amounted to \$10,292.79, making a total cost to the company of \$22,232.79. During the last nine months of operation, the following work has been done by the medical department:—Number of consultations, 2,902; number of visits, 388; number of prescriptions, 1,147.

In view of the large increase in membership arrangements were completed on Feb. 1 last to open medical offices at the different depots of the company, where physicians would be in attendance daily, excepting Sundays and holidays, between 11 a.m. and 12 noon, this being in addition to the office of the chief medical officer and examiner, whose office is at the head offices of the association. This additional accommodation has been much appreciated by the members. Sick committees of four to visit the sick have been formed in the various depots and departments of the company, of which the director representing the depot or department acts as chairman, and the duties of such committee consist in visiting disabled members and reporting thereon.

Our requirements for the pension and death funds have been carefully passed on by a life insurance expert, and every precaution has been taken to secure the complete success of the association.

April Birthdays.

Many happy returns of the day to—

J. A. Armstrong, Chief Dispatcher C.P.R., Ottawa, born at South Durham, Que., April 6, 1863.

Adam Brown, formerly President Wellington, Grey and Bruce Ry. (now G.T.R.), Vice President G.N.W. Telegraph Co., and Postmaster of Hamilton, born at Edinburgh, Scotland, April 3, 1826.

A. Buchanan, Superintendent of Motive Power and Car Department, Central Vermont Ry., St. Albans, Vt., born at New York city, April 3, 1870.

W. J. Camp, Electrical Engineer C.P.R. Telegraphs, Montreal, born at Oakville, Ont., April 22, 1855.

A. H. Clark, Master Mechanic, Irondale, Bancroft and Ottawa Ry., Irondale, Ont., born April 5, 1867.

A. P. Cockburn, Manager and Secretary Muskoka Lakes Navigation and Hotel Co., Gravenhurst, Ont., born in Finch tp., Stormont, Ont., April 7, 1837.

J. H. Flock, K.C., Honorary Counsel Canadian Ticket Agents' Association, London, Ont., born at Toronto, April 6, 1834.

B. W. Folger, Manager Niagara Navigation Co., Toronto, born at Kingston, Ont., April 8, 1872.

G. H. Garden, C.E., Chief Engineer Alberta Ry. and Irrigation Co., Lethbridge, Alta., born at Woodstock, N.B., April 5, 1849.

J. P. Gay, Manager G. T. Despatch Fast Freight Line, Detroit, Mich., born at Hamilton, Ont., April 26, 1857.

E. A. Geiger, ex-Superintendent Brockville, Westport and Northwestern Ry., Brockville, Ont., born at Newark, N.J., April 10, 1863.

B. C. Gesner, formerly Air Brake Inspector I.C.R., now travelling representative, Galena Signal Oil Co., born at Cornwallis, N.S., April 23, 1859.

A. L. Hertzberg, Division Engineer C.P.R., Toronto, born in Norway, April 30, 1855.

E. J. Hilliard, Commercial Agent G.T.R., Buffalo, N.Y., born at Montreal, April 14, 1870.

J. M. Horn, city freight agent Canadian Northern Ry., Winnipeg, born at Schotts, Lanarkshire, Scotland, April 12, 1880.

E. A. James, Manager Canadian Northern

Ry., Winnipeg, Man., born in London, Eng., April, 1865.

B. S. Jenkins, General Superintendent C.P.R. Telegraphs, Winnipeg, Man., born April 8, 1859.

J. S. Lawrence, Superintendent C.P.R., Nelson, B.C., born at Toronto, April 9, 1863.

D. McNicoll, Vice-President C.P.R., Montreal, born at Arbroath, Scotland, April, 1852.

W. A. Ritchie, District Superintendent, The Pullman Co., Montreal, born at Edinburgh, Scotland, April 13, 1854.

E. V. Skinner, Assistant Traffic Manager C.P.R., New York, born in London, Eng., April 22, 1849.

J. W. Smith, General Assistant Canada Atlantic Ry., Ottawa, Ont., born at St. Albans, Vt., April 16, 1866.

A. M. Sutherland, Assistant Superintendent, Duluth, South Shore and Atlantic Ry., Thomaston, Mich., born at Hartford, Conn., April 2, 1844.

J. E. Schwitzer, Resident Engineer, Central Division, C.P.R., Winnipeg, Man., born at Ottawa, Ont., April 19, 1870.

J. R. VanCleve, Master Mechanic, White Pass and Yukon Route, Skagway, Alaska, born at Little Falls, Minn., April 6, 1859.

W. Wainwright, General Assistant and Comptroller, G.T.R., Montreal, born at Manchester, Eng., April 30, 1840.

J. J. Wallace, General Freight Agent, I.C.R. Moncton, N.B., born in Albert Co., N.B., April 20, 1847.

Hon. J. Wood, President and General Manager, New Brunswick and Prince Edward Island Ry., Sackville, N.B., born at Sackville, N.B., April 18, 1843.

W. Woollatt, ex-General Superintendent Buffalo division Pere Marquette Rd., Walkerville, Ont., born at Weedon, Hertfordshire, Eng., April 2, 1855.

Place Names in Canada. The Dominion Geographic Board was organized in 1898 by Order in Council, and has issued five reports, the fifth bringing the work of the Board down to June 30, 1904. During that time the Board has given decisions in regard to the spelling of the names of 2,194 places in Canada, distributed among the different provinces and territories as follows: Alberta, 106; Assiniboia, 21; Athabasca, 24; British Columbia, 601; Franklin, 100; Keewatin, 17; Mackenzie, 12; Manitoba, 37; New Brunswick, 95; Nova Scotia, 80; Ontario, 639; Prince Edward Island, 11; Quebec, 319; Saskatchewan, 40; Ungava, 78; Yukon, 282. The report gives the authorized spelling with the location of the place in alphabetical form, the old name or the old spelling being given in italics, with a reference to the authorized name or spelling. A new feature has been added to the fifth report in the shape of a list of the names in respect of which decisions have been given, arranged alphabetically, under the separate districts or provinces. The by laws provide for monthly meetings of the Board, and for the presentation of an annual report, but the latter by law appears to have been overlooked, as the fourth report was issued in 1903, and gave the decisions up to June 30, 1902. A more frequent publication of decisions should be made, either by special bulletin, or by notice in the Canada Gazette after each meeting.

In the report of the passenger meetings at Buffalo, in our Feb. issue, we stated that a gavel was presented to President A. A. Shantz on behalf of Poole Bros., Chicago, by C. H. Nicholson. We should have said that T. Henry, Traffic Manager of the Richelieu & Ontario Navigation Co., made the presentation on behalf of Poole Bros.

The screen cloth painting tower at the B. Greening Wire Co.'s Works, Hamilton, Ont., was destroyed by fire Mar. 3. The fire did not affect any other branch of the company's business.

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STEAM RAILWAY STATISTICS FOR YEAR ENDED JUNE 30, 1904.

In this table the minus mark (-) before figures in the net earnings column shows that there was a deficit in the operations of the line to the extent of the figures given. The numbers in brackets—thus (1)—after the name of a railway refer to notes on page 141.

Name of Railway	Mileage	Gross Earnings	Net Earnings	Proportion of earnings to working expenses	Earnings per train mile	Operating per train mile	Train Mileage	Engine Mileage	Passengers Carried	Freight Carried
				p. c.	Cts.	Cts.	Miles	Miles		Tons
Alberta Ry. and Coal Co.	66.72	\$ 129,822.67	\$ 28,342.99	128	3.09	2.42	41,892	127,798	14,304	79,356
Algoma Central and Hud. Bay	91.75	160,007.28	34,301.24	127	5.31	4.17	30,125	119,975	16,032	294,484
Atlantic and Lake Superior (1)	100.00	57,345.77	11,662.98	125	0.88	0.70	65,000	65,000	14,416	26,957
Bay of Quinte (2)	93.37	233,635.78	74,336.96	145	1.35	0.92	172,496	172,496	102,258	300,845
Bedlington and Nelson (3) ...	15.30	537.02	- 8,821.27	6	0.25	4.34	2,156	2,180	887	448
British Yukon	90.32	348,991.45	170,031.02	195	4.77	2.45	73,044	73,932	11,264	32,361
Brockville, Westport & N.W. ...	45.00	48,431.25	17,638.59	157	1.05	0.66	46,074	46,074	59,457	17,899
Bruce Mines and Algoma.	16.62	4,661.73	- 5,404.60	46	0.86	1.86	5,400	5,400	7,012	22,120
Buctouche and Moncton.	32.00	19,080.06	- 1,681.73	92	1.04	1.13	18,368	19,836	11,382	23,518
Calgary and Edmonton (4) ...	.....	229,637.52	40,197.04	121	1.85	1.52	124,442	148,808	32,975	48,019
Canada Atlantic (5)	458.60	1,761,300.07	423,611.47	133	1.34	1.01	1,313,637	1,741,073	411,385	1,324,913
Canada Coals and Ry. Co.	12.00	37,246.33	12,152.73	149	1.74	1.17	21,389	28,389	11,139	80,666
Canada Eastern	136.00	116,912.59	1,422.56	101	0.69	0.68	170,130	170,130	58,169	85,944
Canada Southern (6)	382.19	6,364,056.17	591,454.15	110	1.81	1.64	3,514,791	4,807,020	711,097	5,280,046
Canadian Northern (7)	1,343.30	3,242,702.69	1,121,931.26	153	1.91	1.25	1,697,986	1,776,782	358,133	1,109,585
Canadian Government Rys.:										
Intercolonial (8)	1,310.26	6,339,231.43	- 900,751.61	88	0.97	1.11	6,503,579	8,224,858	2,663,156	2,664,149
Prince Edward Island	209.00	234,390.03	- 101,305.41	70	0.75	1.08	310,785	406,007	224,567	86,286
Canadian Pacific (9)	8,062.00	45,790,572.42	14,308,290.69	145	1.95	1.34	23,510,139	32,019,394	6,224,177	11,112,514
Cape Breton	31.00	6,196.73	- 7,869.28	44	0.37	0.85	16,554	16,982	5,279	3,742
Caraquet	68.00	35,188.75	- 7,584.00	82	0.46	0.56	75,240	75,240	8,009	22,055
Carillon and Grenville	13.00	1,936.93	- 1,909.38	50	0.26	0.52	7,367	7,887	6,421	80
Central Ontario (10)	134.60	225,347.17	91,550.88	169	1.74	1.03	129,330	176,020	105,540	277,088
Crow's Nest Southern (11) ...	43.38	42,108.94	- 15,128.39	73	2.29	3.11	18,359	24,208	2,594	61,320
Cumberland Ry. and Coal Co. ...	32.00	121,975.75	20,714.05	120	1.70	1.41	71,443	139,624	36,673	456,159
Dominion Atlantic (12)	220.50	1,074,644.28	269,557.99	133	1.89	1.42	566,626	566,626	303,716	306,556
Edmonton, Yukon and Pacific	4.50	13,543.88	- 4,126.18	77	1.98	2.58	6,850	6,850	17,487	31,706
Elgin and Havelock	28.00	9,615.82	- 2,709.53	78	0.64	0.82	14,996	14,996	6,882	8,523
Esquimalt and Nanaimo	78.00	311,518.51	89,133.84	140	1.09	0.78	284,284	284,284	183,156	192,112
Fredericton and St. Mary's Ry.										
Bridge Co. (13)	1.33	4,858.87	3,427.34	.....	.....	.....	.....	.....	.....	.....
Grand Trunk (14)	3,143.60	25,786,963.14	8,072,704.81	145	1.53	1.04	16,855,706	21,856,461	8,376,140	11,668,672
Gt. Northern Ry. of Can. (15) ...	208.10	338,276.63	2,291.69	101	1.30	1.32	259,969	338,915	145,037	286,671
Gulf Shore	16.78	5,236.46	2,364.81	182	0.99	0.54	5,300	5,300	710	8,714
Halifax and Yarmouth	50.20	39,884.24	9,530.13	131	0.82	0.63	48,100	50,315	51,477	9,540
Halifax and Southwestern (16) ...	96.00	80,731.66	13,861.36	119	1.36	1.14	59,337	92,348	62,746	41,328
Hampton and St. Martins (35) ...	29.00	4,261.70	44.45	.....	.....	.....	10,800	10,800	3,749	3,732
Hereford (17)	53.30	56,539.67	- 29,054.06	66	0.85	1.30	66,059	66,059	21,883	133,892
Inverness Ry. and Coal Co.	61.00	135,300.62	37,483.42	138	1.55	1.12	87,365	91,733	21,052	194,021
Irondale, Bancroft & Ottawa	48.00	21,702.19	- 3,492.88	86	0.66	0.39	32,786	33,000	8,673	21,928
Kaslo and Slocan	31.80	24,683.50	- 18,480.31	57	1.22	2.13	20,237	34,716	6,698	10,270
Kent Northern (18)	27.00	17,170.74	3,605.84	126	0.95	0.75	18,000	18,250	7,110	18,049
Kingston and Pembroke	112.85	183,075.89	33,564.98	122	1.11	0.91	164,752	165,532	43,570	99,620
Kettle River Valley (19)	3.86	5,395.30	- 330.73	94	2.17	2.30	2,485	2,485	1,447	33,810
Lake Erie and Detr. Riv. (20) ...	223.41	1,008,621.10	168,393.81	120	1.26	1.05	796,787	1,110,641	609,265	1,339,966
Lenora, Mount Sicker (35) ...	11.50	6,934.75	- 21,012.71	.....	.....	.....	15,050	15,050	725	1,307
Liverpool and Milton	5.00	9,267.40	3,288.08	155	1.12	0.72	8,300	8,300	25,160	22,678
Lotbiniere and Megantic	30.34	20,751.90	2,844.11	116	1.02	0.89	20,200	25,000	10,440	29,109
Manitoulin and North Shore	16.00	30,255.27	9,941.08	149	2.68	1.79	11,294	16,788	3,205	134,333
Massawippi Valley (21)	35.46	156,936.01	35,553.64	130	0.95	0.73	165,084	227,449	136,077	353,039
Midland of Nova Scotia	57.87	65,314.92	15,151.73	130	0.60	0.46	108,228	108,228	55,612	33,867
Montreal and Atlantic (22) ...	163.50	412,040.16	54,271.88	88	1.11	1.25	372,124	536,621	211,546	844,123
Montreal and Prov. Line (23) ...	58.60	74,498.40	- 6,039.20	92	0.93	1.01	79,920	90,884	108,475	78,785
Montreal and Verm't Jct. (23) ...	23.60	188,090.85	70,420.96	159	1.31	0.82	143,378	150,591	101,874	964,856
Morrissey, Fernie and Michel	4.73	24,862.72	3,284.63	115	1.41	1.22	17,603	18,560	7,250	135,713
Nelson and Fort Sheppard (24) ...	55.42	92,816.36	- 4,195.06	95	2.11	2.21	43,940	48,531	20,523	31,500
N. Bruns. and Pr. Edward Is.	37.50	24,277.26	6,505.65	136	0.65	0.48	36,902	44,590	18,759	33,021
New Bruns. Coal & Ry. Co. (35) ...	44.66	9,117.72	196.96	.....	.....	.....	25,470	25,470	3,674	5,200
New Brunswick Southern	82.50	38,905.38	- 3,761.03	91	0.70	0.60	55,536	55,536	44,276	22,596
New Westminster South'n (25) ...	24.10	22,921.87	- 15,927.68	59	0.90	1.52	25,543	26,693	22,203	24,844
Nelson and Nipissing	5.50	49,040.64	5,086.72	111	3.20	2.86	15,325	16,857	.....	28,606
Nova Scotia St. & Coal Co.'s Ry.	12.50	17,203.57	- 704.24	96	1.15	1.19	15,000	35,000	7,367	115,321
Orford Mountain	26.50	24,165.26	531.96	102	0.68	0.67	35,202	35,202	7,446	36,439
Ottawa and New York	56.79	102,192.01	2,688.03	103	0.95	0.92	108,151	108,151	106,216	60,059
Ottawa North & Western (26) ...	.....	87,186.36	19,314.87	128	1.44	1.12	60,408	60,438	58,116	20,669
Phillipsburg Ry. & Q. Co.'s Ry.	7.50	4,926.82	1,948.94	165	6.78	4.10	726	726	.....	1,608
Qu'Ap., Long Lake & Saskat.	253.96	409,087.30	- 50,145.58	89	1.78	2.00	229,555	278,834	40,141	123,364
Quebec Central (27)	213.50	726,649.22	215,874.50	142	1.16	0.82	625,563	636,346	221,795	133,759
Quebec and Lake St. John	240.00	477,994.54	154,432.07	146	1.33	0.90	359,232	548,967	247,905	318,730
Quebec Ry. Lt. and Pr. Co. (28) ...	30.00	43,833.42	10,049.54	130	1.11	0.85	39,318	39,668	155,980	35,313
Quebec Southern (29)	143.50	168,653.37	- 17,177.65	.....	.....	.....	234,930	236,011	78,309	411,755

(Continued on page 141).

Montreal Steel Works, Ltd.—The annual report for 1904 shows that the net earnings for the year, after providing for all contingencies, were \$116,090.59. Four quarterly dividends on preferred stock at the rate of 7% per annum, amounting in all to \$56,000.00, were paid at due dates. The plant and buildings have been fully maintained out of revenue, and the sum of \$19,235.40 has been set aside and carried to the credit of reserve account to provide for depreciation and extinguishment of buildings and plant, and for such other purposes as the directors may determine. Directors' and auditors' fees for 1903 have been paid, leaving \$40,205.19 at the credit of profit and loss account, which, with \$37,936.00 already at the credit of the account at the beginning of the year, made the total balance at the credit of the account at Dec. 31, 1904, \$78,141.19. Quarterly dividends on common stock at the rate of 5% per annum were paid for 1903, and the directors declared a dividend of 5% on com-

mon stock for the year 1904, payable Mar. 15, 1905. The iron and steel business during 1904 was generally unsatisfactory, both as to volume and prices, but the outlook for 1905 is more encouraging. The new plant, as expected, has resulted in reducing the cost of production and is working in a satisfactory manner.

The John Bertram & Sons Co., Ltd., Dundas, Ont., has recently supplied the Dodge Manufacturing Co., of Toronto, with one of its new patent head, high-speed turret manufacturing lathes, for the rapid production of duplicate work.

The Transportation Club of Buffalo, N.Y., had a membership of 600 as reported at its recent annual meeting, the list including several members resident in Canada. The general fund showed a balance on hand of \$4,242.97, and the benefit fund \$801.05. During 1904 four benefits of \$500 each were paid to the families of deceased members.

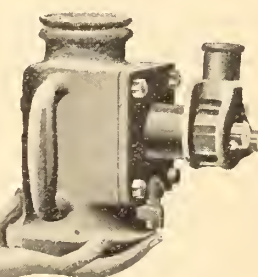
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STEAM RAILWAY STATISTICS FOR YEAR ENDED JUNE 30, 1904—(Continued from page 139.)

Name of Railway	Mileage	Gross Earnings	Net Earnings	Proportion of earnings to working expenses	Earnings per train mile	Operating per train mile	Train Mileage	Engine Mileage	Passengers Carried	Freight Carried
				p. c.	Cts.	Cts.	Miles	Miles		Tons
Red Mountain.....	9.59	61,221.87	11,119.89	122	3.68	3.02	16,615	30,849	14,391	239,614
Rutland and Noyan (30).....	3.39									
Salisbury and Harvey.....	45.00	28,142.22	539.59	102	1.14	1.11	24,742	30,729	12,775	35,780
Schomberg and Aurora.....	15.00	2,395.04	753.67	76	0.24	0.31	10,000	10,000	4,320	
Stanstead, Shefford & Cham. 23	43.00	77,098.97	22,417.31	141	1.09	0.77	70,597	86,840	143,191	1,049,961
St. Clair Tunnel (31).....	2.25	219,778.68	84,728.96	162						
St. Lawrence & Adirond'k (32)	32.82	221,727.27	90,872.98	169	1.27	0.75	173,393	184,584	249,835	312,355
St. Mary's River (33).....	47.00	36,195.79	16,448.42	183	0.96	0.52	37,467	45,030	8,321	29,420
Sydney and Louisburg.....	48.67	665,423.18	276,789.32	171	3.22	1.88	206,233	556,027	48,549	3,152,027
Temiscouata.....	113.00	136,223.65	17,383.75	115	0.87	0.76	155,578	155,578	58,863	90,636
Tillsonburg, Lake Erie & Pacific	35.33	23,360.95	3,972.87	87	0.51	0.58	55,120	55,120	26,200	25,709
Thousand Islands.....	6.33	34,361.25	9,446.71	137	0.95	0.69	36,014	36,014	46,801	30,599
Toronto, Ham. & Buffalo (34)	87.78	673,311.96	224,051.18	149	0.94	1.30	345,545	620,083	281,628	1,026,945
Vancouver, Vict. & East. (25)	16.50	27,434.62	13,003.86	190	2.03	1.07	13,486	14,522	17,383	15,013
Victoria and Sidney (25).....	16.26	26,729.23	2,477.00	92	1.00	1.10	26,424	26,424	41,694	23,633
Victoria Term. Ry. & F. Co. (25)	18.40	12,058.14	12,888.86	48	0.45	0.94	26,645	26,645	53,038	33,108
Wellington Colliery Co.....	10.75	4,402.20	16,789.20	21	0.21	0.99	21,296	21,296	3,776	216,231
York and Carleton.....	5.75	3,307.00	419.00	114	4.72	4.12	700	700	4,500	3,200
	19,430.99	\$100,219,426.22	\$25,656,274.49				*61,312,002	*80,508,064	*23,640,765	*48,097,519

Notes to Steam Railway Statistics.

(1) The Atlantic and Lake Superior Ry. mileage refers to the Baie des Chaleurs Ry., 100 miles. The Great Eastern Ry., 23 miles, and the Ottawa Valley Ry., 7 miles, are not under traffic. The railway is in the possession of the bondholders, and is operated by them.

(2) The Bay of Quinte Ry. includes the old Kingston, Napanee and Western Ry.

(3) The Bedlington and Nelson Ry. has running powers over the C.P.R. from Creston Jet. to Sirdar Jet., 8.67 miles. It is operated in the interests of the Great Northern Ry., U.S.

(4) The Calgary and Edmonton Ry. returns are up to Sept. 30, 1903, only, on which date the C.P.R. took over the line under lease. Its mileage is included in the C.P.R. mileage.

(5) The Canada Atlantic Ry. mileage, including the Ottawa, Arnprior and Parry Sound Ry., is 400.30 miles. It operates under lease the Central Counties Ry., 37.40 miles, and the Pembroke Southern Ry., 20.90.

(6) The Canada Southern Ry. mileage includes the Leamington and St. Clair Ry., 15.95 miles, and the Sarnia, Chatham and Erie Ry., 7 miles, operated under lease. It has 149.34 miles of double track. The C.S. Ry. is controlled by the Michigan Southern Rd.

(7) The Canadian Northern Ry. mileage includes the old Northern Pacific and Manitoba and Portage and Northwestern Rys., 354.65 miles, operated under lease from the Manitoba Government, and the following lines: Winnipeg, Great Northern, Port Arthur, Duluth and Western, Lake Manitoba Railway and Canal Co.'s line, Manitoba and South-eastern, and Ontario and Rainy River Ry., 998.65 miles. It also operates 56 miles of line in Minnesota, which connects the O. and R.R. Ry. with the Man. S. Ry. The figures given in the table refer to the Canadian lines only.

(8) The Intercolonial Ry. mileage, 1,310.26, includes the Drummond County Ry., but not the Windsor Branch, 32 miles, which is leased to the Dominion Atlantic Ry. It has running powers over the G.T.R. from Point Levis to Hadlow, Que., 1.50 miles; from

Chaudiere Curve to Chaudiere, Que., 1.18 miles, and from Ste. Rosalie Jet. to Montreal, 37.62 miles, a total of 40.30 miles.

(9) The C.P.R. mileage includes lines owned 4,742.40 miles, and the following leased lines: Calgary and Edmonton, 296.20 (from Sept. 30, 1903); Fredericton, 22.10; New Brunswick, 174.80; New Brunswick and Canada, 117.20; St. John and Maine, 91.80; St. John Bridge and Ry. Extension, 2.00; St. Stephen and Milltown, 4.60; Tobique Valley, 28.00; Cap de la Madeleine, 2.30; Montreal and Lake Maskinonge, 11.00; Atlantic and Northwestern, 200.70; Montreal and Ottawa, 93.50; Ontario and Quebec, 471.40; St. Lawrence and Ottawa, 58.30; Credit Valley, 175.70; Guelph Jet., 15.00; Toronto, Hamilton and Buffalo, 2.20; Toronto, Grey and Bruce, 191.10; West Ontario Pacific, 26.60; Manitoba and Northwestern, 294.60; Manitoba Southwestern Colonization, 215.70; Kootenay and Arrowhead, 33.40; Columbia and Kootenay, 59.50; Nakusp and Slovan, 36.30; Shuswap and Okanagan, 50.80; Ottawa, Northern and Western, 158.70 (from Oct. 31, 1903); Columbia and Western, 157.10; Great Northwest Central, 111.70; British Columbia Southern, 200.40; Vancouver and Lulu Island, 16.90. It has also running powers over the G.T.R. from Toronto to Hamilton Jet., 35.80 miles; and over the Canada Atlantic Ry. from Montreal and Ottawa Jet. to Ottawa, 0.90 miles; total, 36.70 miles. It has 35.70 miles of double track.

(10) The Central Ontario mileage includes the Marmora Ry. and Mining Co.'s line, formerly known as the Ontario, Belmont and Northern Ry., 9.60 miles.

(11) The Crow's Nest Southern Ry. is operated in the interests of the Great Northern Ry., U.S., connecting at the International boundary with a branch line from Jennings, Mont.

(12) The Dominion Atlantic Ry. mileage includes the Windsor and Annapolis Ry., 87.50 miles; Cornwallis Valley Ry., 11.00 miles; Yarmouth and Annapolis Ry., formerly the Western Counties Ry., 87.32 miles, and the Windsor branch, 32.00 miles, the latter of which is operated under lease from the Intercolonial Ry. It has also running powers over the Intercolonial Ry. from Windsor Jet. to Halifax, 11 miles.

(13) The Fredericton and St. Marys Ry. and Bridge Co. has running powers over the Canada Eastern Ry. for 0.17 miles. It has not made any return for the year, the figures quoted being for the year ended June 30, 1903.

(14) The G.T.R. mileage includes the following lines: G.T.R., 880.35 miles; Wharf branch, Montreal, 3.44 miles; Great Western Ry., 561.80 miles; Brantford, Norfolk and Port Burwell Ry., 34.39 miles; Buffalo and Lake Huron Ry., 162.00 miles; Grand Trunk, Georgian Bay and Lake Erie Ry., 172.62 miles; Owen Sound branch, 12.42 miles; London, Huron and Bruce Ry., 68.00 miles; Waterloo Jet. Ry., 10.25 miles; South Norfolk Ry., 17.00 miles; Wellington, Grey and Bruce Ry., 168.18 miles; Northern Ry., 172.10 miles; North Simcoe Ry., 33.00 miles; Hamilton and Northwestern Ry., 172.00 miles; Northern Pacific Junction Ry., 111.32 miles; Toronto Belt Line, 12.79 miles; Midland Ry., 166.00 miles; Grand Junction Ry., 82.51 miles; Toronto and Nipissing Ry., 85.00 miles; Lake Simcoe Junction Ry., 26.00 miles; Victoria Ry., 53.00 miles; Whitby, Port Perry and Lindsay Ry., 46.00 miles; Jacques Cartier Union Ry., 6.50 miles; Montreal and Champlain Ry., 61.73 miles; Beauharnois Junction Ry., 19.50 miles. It has running powers over the Chaudiere branch of the Intercolonial Ry., 5.77 miles. It has 561.50 miles of double track.

(15) The Great Northern Ry. of Canada includes the Lower Laurentian Ry., and the Montreal and Gatineau Colonization Ry.

(16) The Halifax and Southwestern Ry. includes the old Nova Scotia Central Ry., and the Nova Scotia Southern Ry.

(17) The Herford Ry. is operated by the Maine Central Rd.

(18) The Kent Northern Ry. mileage does not include the St. Louis and Richibucto Ry., 7 miles, which is not now being operated.

(19) The Kettle River Valley Ry. also operates in the State of Washington, from the boundary to Republic, Wash.

(20) The Lake Erie and Detroit River Ry., including the Erie and Huron Ry., is 199.11 miles in length; it also operates the London and Port Stanley Ry., 24.00 miles. The line is owned by the Pere Marquette Rd.

(21) The Massawippi Valley Ry. is leased to the Boston and Maine Rd., and has run-

ing powers over the G.T.R. from Lemoxville to Sherbrooke, Que., 2.95 miles.

(22) The Montreal and Atlantic Ry. includes the old Southeastern Ry., 103.00 miles, and the Lake Champlain and St. Lawrence Junction Ry., 60.50 miles. The first named has 5.50 miles of double track.

(23) The Montreal and Province and Montreal and Vermont Jet. lines and the Stanstead, Shefford and Chambly lines are leased by the Central Vermont Ry.

(24) The Nelson and Fort Sheppard Ry. has running powers over the C.P.R. from Five Mile Point to Nelson, B.C., 4.70 miles. It is operated in the interests of the Great Northern Ry., U.S.

(25) The New Westminster Southern Ry., the Red Mountain, Vancouver, Victoria and Eastern Ry., Victoria and Sidney, and Victoria Terminal Ry. and Ferry Co. are operated by or in the interests of the Great Northern Ry., U.S.

(26) The Ottawa, Northern and Western Ry. returns are up to Oct. 31, 1903, on which date it was taken over by the C.P.R. under lease. It has running powers over the Hull Electric Ry., 2.50 miles. The mileage is included with that of the C.P.R.

(27) The Quebec Central Ry. has running powers over the Intercolonial Ry. from Harlaka Jet. to Levis, Que., 5.00 miles.

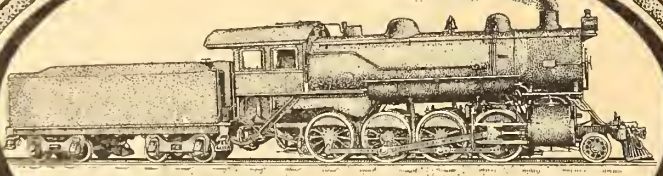
(28) The Quebec, Montmorency and Charlevoix Ry. is operated as a steam and electric railway by the Quebec Ry., Light and Power Co. The returns given are for the operation by steam. It has 6.00 miles of double track.

(29) The Quebec Southern Ry. comprises the United Counties, the East Richelieu Valley, and the South Shore railways. It is being operated by a receiver, and no report of traffic for the year has been received, the figures given being those for 1902-03.

(30) The Rutland and Noyan Ry. is operated by the Rutland Rd., a U.S. company, and a report of its operations has not been received.

(31) The earnings of the St. Clair Tunnel are from tolls on vehicles hauled through the tunnel.

(32) The St. Lawrence and Adirondack Ry. has running powers over the G.T.R. from Valleyfield to Beauharnois, Que., 13.30 miles; and over the C.P.R. from Adirondack Jet. to Montreal, 8.70 miles. It is operated by the New York Central and Hudson River Rd.



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SUBSTITUTE"**

(33) The St. Mary's River Ry. is operated by the Alberta Ry. and Coal Co.

(34) The Toronto, Hamilton and Buffalo Ry. has 4.69 miles of double track.

(35) No returns for the year ended June 30, 1904, have been received from the following lines: Hampton and St. Martin's Ry.; Lenora, Mount Sicker Ry.; New Brunswick Coal and Ry. Co. The figures given are for the year ended June 30, 1903.

*The totals given are not strictly accurate, as they include returns for a number of lines for the year ended June 30, 1903, the figures for the year ended June 30, 1904, not having been received in time to be included.

The Dominion Wire Rope Co., Ltd., held its 19th annual meeting in Montreal recently, when the following were elected for the current year:—President, F. W. Fairman; Vice-President and Managing Director, F. H. Hopkins; Secretary-Treasurer, J. J. Rosevear. This business was established in 1882, as the Dominion Wire Rope Works, by the late firm of Cooper, Fairman & Co., in the old Grey Nunnery on Normand St., Montreal, and was taken over by the present company on its incorporation in 1886. The works are now at Lachine, where a modern plant turns out practically all varieties of steel and iron wire ropes.

Engineers' Club of Toronto.—A suggestion that the Club should amalgamate or affiliate with the Canadian Society of Civil Engineers was discussed at a recent meeting, when it was decided to take a general vote of the members on the question. The result of the vote was opposed to the suggestion. At other recent meetings a paper on "The Present Condition of the Metrics" was read by Arthur Harvey; R. P. Wolsey gave a talk on Jamaica, and the possibilities of New Ontario in the Abitibi Valley was discussed under the leadership of T. P. Speight. Business luncheons for the members are held at the Club rooms every Wednesday.

The Canadian Westinghouse Co. has issued booklets on its self-contained direct current multi-polar generators, and the Westinghouse type N. transformers.

We are advised that the G.T.R. has placed an order with the Dominion Iron and Steel Co., Sydney, N.S., for 25,000 tons of steel rails to be delivered during 1905.

The Continental Heat and Light Co., Montreal, has created a special department for its heating and ventilating business, in charge of F. W. Richardson, formerly of New York.

In the article headed Railways and Special Freight Rates, appearing on pg. 97 of our March issue, the word "exhaustive" in the fifth line from the bottom of the column should read "exhausted."

Following are the officers and directors of the Montreal Warehousing Co. for the current year: President, C. M. Hays; Vice-President, W. M. Ramsay; other directors: J. W. Lord, F. W. Morse and W. Wainwright. Manager and Secretary, G. H. Hanna.

The Canadian Westinghouse Co., Hamilton, Ont., has issued circulars respecting its Westinghouse type K. Motors; Westinghouse Bi-Polar Motors, type R.; Oil Switches and Oil Circuit Breakers; and Points for consideration when purchasing Series A.C. Arc Lamps.

Babcock & Wilcox, Ltd., Montreal, have received a contract from the city of Winnipeg, for the installation of two of their 250 h.p. forged steel, patent water tube boilers, fitted with B. & W. patent steam superheaters and chain grate automatic stokers. This is an addition to the power plant of the city water-works system, in which five of the same type of boiler were installed some five years ago.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Algoma Central and Hudson Bay Ry. In a recent interview at Toronto, F. H. Clergue is reported as having stated that the line would be completed to a junction with the main line of the C.P.R., and that the operations would be commenced at an early date and conducted with energy, and that assurances to that effect had been given to the Ontario Government. Enquiry of members of the Government fails to confirm this. We are advised the matter is under the consideration of the directors, and will be dealt with definitely in the near future. (Mar., pg. 89.)

Algoma Copper Range Ry.—R. D. Perry, Toronto; F. M. Perry, Jno. McKay, Sault Ste. Marie, Ont.; G. Kemp, F. Perry, Sault Ste. Marie, Mich., are the applicants at the current session of the Dominion Parliament for an act incorporating a company with this title, with a capital of \$500,000, and power to issue securities not exceeding \$25,000 a mile of railway constructed. The railway proposed will extend from Batchawana Bay, on Lake Superior, easterly to the Superior Copper Mines, thence easterly for about 120 miles to the C.P.R. transcontinental line between Cartier and Biscotasing, Ont. (Mar., pg. 89.)

Athabasca and Northern Ry.—F. H. Markey, H. E. Smith, Montreal; J. K. Mackenzie, Selkirk, Man.; M. Burton, Barrie, Ont., and O. E. Flenning, Windsor, Ont., are applying at the current session of the Dominion Parliament for an act incorporating a company with this title, to construct a railway from Edmonton, northerly to Athabasca Landing, Alta. (Feb., pg. 45.)

Bessemer and Barry's Bay Ry.—A meeting of shareholders was held at Bessemer, Ont., Mar. 31, to authorize the issue of bonds to the extent of \$100,000 for the purpose of constructing the proposed railway, or such part thereof as may be agreed on, and to authorize the placing of a mortgage upon the company's property to secure the same. (Jan., pg. 9.)

Bruce Mines and Algoma Ry.—The Ontario Legislature will be asked at its current session to pass an act authorizing the construction of a line from the C.P.R. between Chapleau and Biscotasing stations on the C.P.R. transcontinental line, northerly to Hannah Bay, on Hudson's Bay. Power is also asked to operate steam and other vessels on waters opened up by the company's lines. The company has its line in operation from the shore of Lake Huron to Rock Lake, and is authorized to extend it from Rock Lake to the C.P.R. transcontinental line, near Biscotasing. (Aug., 1904, pg. 275.)

Canada Central Ry. The Ontario Legislature will be asked at its current session for an act extending the time for the commencement and completion of this projected line, from the boundary of Quebec to the boundary of Manitoba. There is a Dominion charter covering the whole line from Quebec to the Pacific coast.

Canadian Yukon Western Ry.—Application will be made by L. A. Herdt, C. Archer and R. Anzias-Turenne, of Dawson, Yukon, at the current session of the Dominion Parliament, for an act extending the time within which the projected line may be begun and completed, and rearranging its bonding powers, etc. The company was incorporated in 1903, with power to construct a railway from Dawson to the International boundary through the Forty Mile district.

Cape Breton Coal, Iron and Ry. Co.—The report that Sir C. Rivers Wilson, President G.T.R., had acquired a controlling interest in this company is, we are officially informed,

untrue. J. F. Case, of Pittsburg, Pa., is in charge of the construction of the line. (Jan., pg. 11.)

Central Canada and Hudson Bay Ry.—Application will be made at the current session of the Ontario Legislature for an act incorporating a company with this title to construct a railway from Heron Bay, on Lake Superior, northerly and easterly to the Albany River, thence to Fort Albany on James Bay. Jas. B. O'Brian, Toronto, is solicitor for the applicants.

Central Vermont Ry.—An arrangement has been reached by which the C. V. Ry. will rebuild, as a standard gauge line, the narrow gauge line between Brattleboro and South Londonderry, Vt., 35 miles.

Detroit River Bridge.—Detroit papers state that it is definitely announced that the Michigan Central Rd. will construct a double tunnel under the Detroit River between Detroit, Mich., and Windsor, Ont., and that all the plans for the same are completed. A later report states that if the Michigan Central Rd. constructs such a tunnel, it is likely that the G.T.R., the C.P.R., the Wabash Rd. and the Pere Marquette Rd. will combine to construct a joint tunnel or bridge. (Mar., pg. 93.)

Edmonton, Yukon and Pacific Ry.—The Dominion Parliament is being asked at its current session for an extension of five years within which the company's authorized lines may be constructed. (Feb., pg. 19.)

Esquimalt and Nanaimo Ry.—The sale of the E. and N. Ry. to the C.P.R. has revived the prospects of the construction of additional lines on Vancouver Island. General Superintendent Marpole, of the C.P.R., stated recently at Vancouver, that as soon as the line was transferred the C.P.R. would make a general survey of the Island, with a view of finding out its resources and the possibility of opening it up more extensively by railways.

French River Ry.—Application will be made at the current session of the Ontario Legislature for an act incorporating a company with this title, with power to construct a railway, to be operated by steam, electricity or other motive power, or partly by steam and other motive power, from French River Harbor, on Georgian Bay, easterly to Cross Narrows, on the Pickering River, then south easterly to Kidds Landing, Magnetawan and Burk's Falls, Ont. Power is also asked to construct branch lines and to carry on a general navigation business. Lindsey, Lawrence & Wadsworth, Toronto, are solicitors for the applicants.

Haliburton, Whitney and Mattawa Ry.—Application will be made at the current session of the Ontario Legislature for an act extending the time for the commencement and completion of this projected line from Haliburton to Mattawa, Ont.

Halifax and Northwestern Ry. A return presented Feb. 24 to the Nova Scotia Legislature showed that the plans for the line between Bristol and Sable River had been deposited Aug. 3, 1901, but had not been approved. There was a dispute between the company and the Government as to the proper place to construct the railway, in the interests of the road and the people of the country. A number of conferences had taken place between the company, its managers and engineers and the Government, and the Government had heard numerous delegations from the people of the locality. The plans for the line between Sable River and Barrington Passage were approved Sept. 13. (Mar., pg. 93.)

Hamilton to Galt.—Application will be made at the current session of the Ontario Legislature for an act incorporating a company to construct a railway from Hamilton to Galt, Ont., passing through Ancaster,

West Flamboro, Beverly, Wentworth and North Dumfries townships. Barwick, Aylesworth, Wright & Moss, Toronto, are solicitors for the promoters.

Hermia Mining Co. (Ltd.)—Application will be made at the current session of the Ontario Legislature for an act authorizing the company to construct and operate a railway from Lake Huron northerly through the townships of Victoria, Salter, and Tennyson, Ont.

Intercolonial Ry.—The Minister of Railways and Canals, in referring to the estimates for the I.C.R. in the House of Commons recently, stated that the traffic would soon require a double track between Halifax, N.S., and Moncton, N.B. The line between Richmond and Rockingham, N.S., had been double-tracked, and the section between Rockingham and Bedford, N.S., was now under contract. A contract had also been let for double-tracking between Windsor Jet.

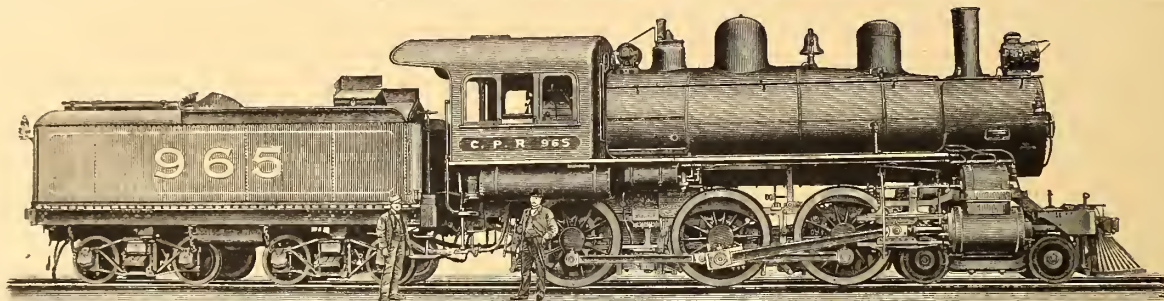
and Bedford Bridge to R. McManus. The total expenditure for improvements at Halifax, N.S., was estimated at about \$1,000,000, of which about \$200,000 would be required this year for a number of improvements, including an engine house, new sheds, new tracks to the elevators and other works. The following sums have been voted, chargeable to capital:—

Original construction.....	\$ 2,000
Strengthening bridges.....	142,000
Double-tracking parts of line.....	100,000
Additional sidings and spur lines.....	135,800
Semaphores at stations.....	1,000
Improving grades on line.....	22,000
Increasing water supply.....	2,400
Steel rails and fastenings.....	380,000
Increasing accommodation, Sydney.....	81,500
Improvements, North Sydney.....	23,200
Extension to Sydney Mines.....	50,000
Dredging and blasting rock at deep water terminus, Halifax.....	18,000
Increased accommodation, Halifax.....	200,000
New station at Windsor.....	11,000
Increased accommodation, Stellarton.....	30,000
" " Pictou.....	57,500

Protection to Grand Narrows bridge.....	\$35,000
Increased accommodation, Truro.....	50,000
To reduce curve at Birch Cove.....	60,000
Increased accommodation, Antigonish.....	9,000
" " New Glasgow.....	29,500
" " Amherst.....	28,000
" " St. John.....	35,000
" " Moncton.....	110,000
Improvements, Newcastle.....	25,500
" " Campbellton.....	12,000
" " Sackville.....	7,500
Increased accommodation, Memramcook.....	4,000
" " Levis.....	5,200
Improvements, Little Metis.....	14,500
Engine-house, etc., Riviere du Loup.....	36,000
" " Chaudiere Jet.....	32,000
Increased accommodation, St. Flavie.....	35,000
Diversion of line, St. Leonard Jet.....	12,000
" " Mitchell.....	15,000
Improvements at Drummondville.....	23,000
Diversion of public road near St. Cyrille.....	500
Station at St. Moise.....	2,300
Subway near St. Fabien.....	7,650

(Mar., pg. 93.)

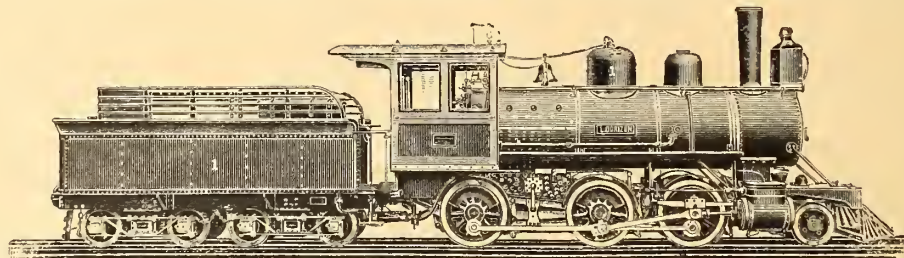
Irondale, Bancroft and Ottawa Ry.—Application will be made at the current session of the Ontario Legislature for an act extend-



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of
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ing the time for the construction of the line easterly from its present terminus at Bird Creek to Renfrew, Ont.; and also authorizing the construction of a line westerly from the junction with the G.T.R. near Kinmount, to Georgian Bay.

Lake Superior, Long Lake and Albany River Ry.—The Ontario Legislature will be asked at its current session to pass an act authorizing the extension of time for the commencement of this projected railway from Peninsula Harbor, on Lake Superior, to the Albany River; increasing the capital stock to \$5,000,000 and for other purposes.

Lebonk and Thunder Bay Ry.—R. H. Flaherty, H. E. Knobel, Port Arthur, Ont.; G. A. Elliott, Winnipeg, Man., are applying at the current session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from Lake Superior, following the valley of the Blende River to Lebonk mine, thence westerly to the south shore of Loon Lake, Ont. Power is asked to sell the line to or amalgamate with the G. T. Pacific Ry., or the Thunder Bay, Nepigon and St. Joe Ry. (Feb., pg. 49.)

Midland Terminal Ry.—The Ontario Legislature will be asked at its current session for an act extending the time for the commencement and completion of this projected railway in the town of Midland, Ont. H. T. Canniff, Toronto, is solicitor for the company.

New Ontario Ry.—Application will be made at the current session of the Ontario Legislature for an act continuing in force the act incorporating the N.O.Ry. Co., and extending the time for the commencement and completion of its projected railway. The company has power to construct a railway from Dryden, on the C.P.R. transcontinental line, to Lac Seul, and to operate it by steam or electricity.

Nicola, Kamloops and Similkameen Coal and Ry. Co.—The controlling interest in the company recently passed into the hands of several Canadian and U.S. people, the new directorate consisting of C. E. Loss, New York; G. A. Begy, St. Catharines, Ont.; H. S. Osler, W. B. Raymond, B. M. Osler, C. E. Loveys, Toronto. The coal lands, which were owned by the original company, still remain in the old company's hands, and a new company has been formed with H. E. Larkin as President, and W. S. McNamara as Secretary, to develop the coal fields, so as to be ready to ship coal as soon as the railway is completed. The company which will construct the railway expects to make a start at construction as soon as the legislation, now before the Dominion Parliament, has been obtained. The extended powers which are being asked for will enable the company to construct a line to Grand Forks, B.C., where a connection will be made with the Vancouver, Victoria and Eastern Ry. A connection will also be made with the Columbia and Western Ry. (C.P.R.) at Midway. (Jan., pg. 13.)

Ottawa Valley Ry.—The application to extend the line from St. Andrew's, Que., via Ottawa to Georgian Bay, with branches, was thrown out by the Railway Committee of the House of Commons, the standing orders as to publication of notices not having been fully complied with. (Feb., pg. 51.)

Penetanguishene to Udney.—Application will be made at the current session of the Ontario Legislature for an act incorporating a company to construct a railway from Penetanguishene, through the townships of Tay or Tiny, Medonte, North Orillia, South Orillia, to Brechin, Ont., and passing through the towns of Midland and Orillia. Royce & Henderson, Toronto, are solicitors for the promoters.

Prince Edward Island Ry.—A vote for \$650,000 for the Murray Harbor branch has been passed by the House of Commons. The branch was projected in 1898, when it was estimated that the cost would be \$472,000. Up to Nov. 30, 1904, the line had cost \$870,121, and it is now estimated that the total cost will be \$1,031,000. The original contract with W. Kitchen was for 11 miles, but he was given the construction of the rest of the line at the same prices. The bridge across the Hillsboro River was originally estimated to cost \$800,000, but owing to changes in the plans, adopted on the recommendation of the engineers, the cost of the work when completed will be \$1,474,000. (Mar., pg. 94.)

Quebec Bridge and Ry. Co.—C. Schrieber, Deputy Minister of Railways and Canals, accompanied by the members of the Transcontinental Ry. Commission, recently visited Quebec, and inspected the progress of work on the bridge. It was reported that the shipment of steel for the bridge would be commenced by the end of March, the material in stock at the works in Pennsylvania being sufficient to fill about 700 cars. (Mar., pg. 95.)

Rouse's Point to St. Constant, Que.—A press report states that the Delaware and Hudson Co. proposes to construct a line from the International boundary at Rouse's Point, N.Y., to St. Constant, Que., under an old charter, which it controls.

Salmon River and Northern Ry.—Application will be made next session of the Quebec Legislature for an act incorporating a company with this title to construct a railway from the Ottawa River to a junction with the Grand Trunk Pacific Ry., near the La Lievre River, Que. (Mar., pg. 95.)

Saskatchewan Bridge Co.—C. M. Hays, W. Wainwright, H. A. Allan, J. Hobson, W. H. Biggar, H. A. Wood, H. Phillips, Montreal; F. Oliver, K. W. Mackenzie, Edmonton, Alta., are applying at the current session of the Dominion Parliament for an act incorporating a company with this title to construct a railway and general traffic bridge across the Saskatchewan River between Strathcona and Edmonton, Alta. (Mar., pg. 95.)

Temiskaming and Northern Ontario Ry.—The construction of this line, heretofore in charge of a commission consisting of R. Jaffray (chairman); B. W. Folger, Kingston, Ont.; F. Leonard, London, Ont., and M. J. O'Brien, Renfrew, Ont., will in future be in charge of a commission of three, consisting of C. B. Smith, C.E., Toronto; D. Murphy, Ottawa; J. L. Englehart, Petrolia, Ont. C. B. Smith has been appointed chairman. Hon. J. P. Whitney, the premier, states that it has been decided by the Government to proceed with the work and carry it through to completion. (Mar., pg. 95.)

Vancouver, Victoria and Eastern Ry.—The extension from Grand Forks to Phenix, B.C., was inspected by W. McCarthy, Dominion Government Inspecting Engineer, at the end of Feb., and a passenger train service was placed in operation Mar. 5. (Mar., pg. 95.)

Yukon Trust and Loan Co.—Application will be made at the current session of the Quebec Legislature for an act incorporating a company with this title to construct tramways and other works in the Yukon Territory, in connection with a real estate and loan business. Beaubien and Lamarche, Montreal, are solicitors for the applicants.

The Locomotive and Machine Co. of Montreal has received orders for a large amount of bridge work for the C.P.R. It has also in hand contracts for the steel work for the new post office at Winnipeg; the Royal Victoria Museum and the Dominion Mint at Ottawa.

Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:—

Approving of plans for the crossing of the Algoma Central and Hudson Bay Ry. under the tracks of the C.P.R. in Sault Ste. Marie, Ont. (Feb. 9.)

Sanctioning change in the location of the located line of the extension of the Alberta Ry. and Irrigation Co.'s line between mileage 13 and mileage 17. (Feb. 13.)

Authorizing the construction of a spur line from Spragge station on the C.P.R. Sault Ste. Marie line, for a distance of 1,347 ft. (Feb. 14.)

Granting permission to the Toronto City Council to extend Wallace Avenue across the tracks of the G.T.R., northern division, the city to provide whatever protection may be required for the crossing, and to consent to the laying of an additional track or tracks by the G.T.R. across the street should such be necessary. (Feb. 18.)

Approving of an extension of time fixed in the order of Dec. 19, 1904, for the use by the Canadian Northern Ry. of its crossing of the C.P.R. tracks at Emerson, Man. (Feb. 20.)

Granting permission to the Berlin, Ont., Light Commissioners to lay a gas main under the G.T.R. tracks in that city. (Feb. 20.)

Extending to Dec. 31, 1905, the time for the use by the Vancouver, Westminster and Yukon Ry. of a crossing of the British Columbia Electric Ry. at Park Ave., Vancouver, B.C. (Mar. 1.)

Granting permission to the Consumers' Gas Co., of Toronto, to lay a gas main under the G.T.R. tracks near Jones Ave., Toronto. (Mar. 2.)

Authorizing the construction of a bridge across the Blackstone River, at a point 10 miles from Parry Sound, Ont., by the James Bay Ry. (Mar. 2.)

Sanctioning a change in the location of the Quebec, New Brunswick and Nova Scotia Ry. through Portneuf county, Que., between mileage 15.6 and mileage 57.4. (Mar. 2.)

Authorizing the town of Rat Portage, Ont., to construct a bridge over the tracks of the C.P.R. at Julius St., Rat Portage. (Mar. 2.)

Sanctioning a change in the location of the Canadian Northern Ry. through township 10, ranges 15, 16, 17 and 18, west of the principal meridian, Manitoba, to a junction with the Northern Pacific and Manitoba Ry., near Brandon, Man., between mileage 51.35 and mileage 76.90. (Mar. 2.)

Authorizing the crossing of the G.T.R. tracks at Milverton, Ont., by the Guelph and Goderich Ry., by an overhead bridge. (Mar. 6.)

Approving of a rail level farm crossing of the Canada Southern Ry. at Bridgen, Ont., on terms set out in an agreement between G. Miller and the company. (Mar. 7.)

Authorizing the laying of a sewer under the C.P.R., the G.T.R. and the Toronto Belt Line Ry. tracks at Eastern Avenue, Toronto. (Mar. 10.)

Sanctioning a change in the location of the Tillsonburg, Lake Erie and Pacific Ry., from Wouham Road to the northern boundary of Ingersoll, Ont. (Mar. 11.)

A bill has been laid before the Senate providing that senators and members of the House of Commons shall be provided with a form provided by the clerk of each house, the production of which shall be accepted by railway conductors in lieu of the production of a pass. Under the terms of the Railway Act senators and members of the House of Commons are entitled to passes from all the railways in Canada, and the promoter of the bill evidently wants to be dead-headed without having to take the trouble to sort over his bundle of passes to find the one for the particular line he may be travelling over.

New Union Station for Toronto

The Board of Railway Commissioners made an order, dated Feb. 23, with respect to the application of the G.T.R. for authority to expropriate certain lands, additional to those it now occupies, lying north of Esplanade St. and between Yonge and York streets, Toronto, and required for the purposes of the company. The following parties were interested in the application and appeared before the Board by counsel at the different hearings: G.T.R., C.P.R., James Bay Ry., Toronto City Council, W. W. Baldwin Estate, Eckardt Co., A. R. Williams, M. McLaughlin, Land Security Co., Dominion Transport Co., Toronto General Trusts Corporation, J. B. Smith Estate, H. W. Petrie Co., and the own-



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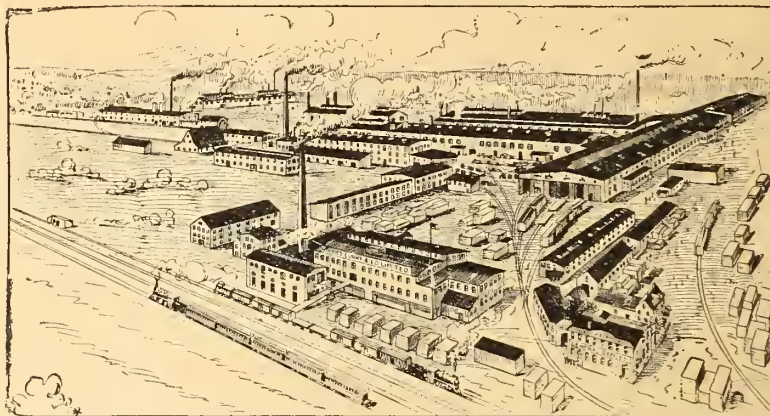
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2,500 Car Axles	500 tons Castings	1,000 tons Forgings	

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THE NEW CANADIAN HIGHWAY FROM PORT ARTHUR, THE
HEAD OF LAKE SUPERIOR, TO—

**FORT FRANCES
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EMERSON
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HARTNEY**

**GLADSTONE
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DAUPHIN
SWAN RIVER**

Line surveyed and now under construction to:—

PRINCE ALBERT

BATTLEFORD

EDMONTON

FREIGHT:—Shipments are handled from points in Eastern Canada, either Grand Trunk or Canadian Pacific Railways, via North Bay to Port Arthur, thence Canadian Northern Railway.

PASSENGER:—Passengers destined to points on the Canadian Northern Railway north, south and west of Winnipeg, can purchase through tickets via Chicago and St. Paul, where connection is made with the Canadian Northern Flyer for Winnipeg via Great Northern Railway, also with Northern Pacific Railway.

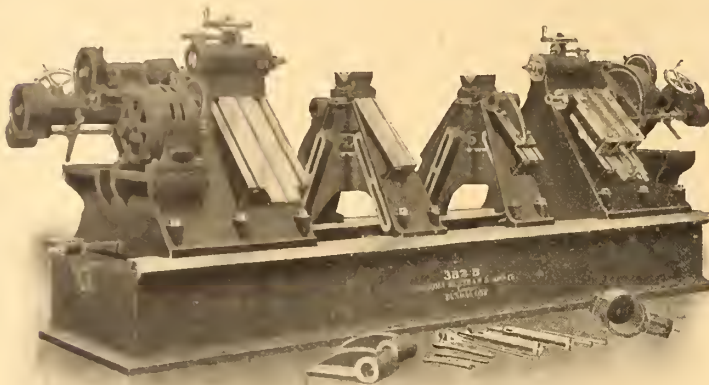
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BERTRAM QUARTERING MACHINE



**With Outboard Support for Boring Spindles
and Removable Rest for Turn-
ing Crank Pins.**

This 90" Quartering Machine is designed for quartering and boring crank pin holes in locomotive driving wheels having right hand lead and wheels having left hand lead up to 85" in diameter on the tread. The boring spindles have 15" travel and two changes of power and rapid hand movement. The saddles are graduated and have angular adjustment for any length of stroke from 12" to 36". The axles are held on their centres and supported by adjustable V bearings, the wheels being clamped to the side of the frame. Each head is arranged to be driven by a 5 H.P. electric motor.

The JOHN BERTRAM & SONS CO., Limited
Dundas, Ontario, Canada

JAS. W. PYKE & COMPANY

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FRIED. KRUPP, ESSEN, GERMANY.

Steel Rails.

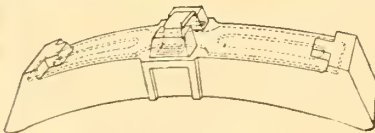
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Locomotive and Car Wheel Tyres.

Axles, Crank Pins, Forgings, Etc.

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STEEL BACK CAR BRAKE SHOE

Can be applied to any type of shoe.
The **Steel Back** doubles the life of the shoe.



Scrap, 5 Pounds

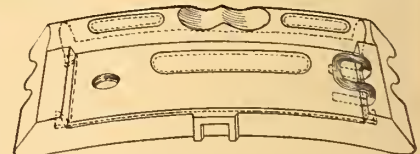
Steel Back Brake Shoe

ONLY SAFE SHOE FOR HIGH SPEED BRAKES

More dense and durable than common Cast Iron

Perfecto Driver Brake Shoe

THE BEST SHOE FOR GENERAL LOCOMOTIVE
SERVICE



Back View

PERFECTO DRIVER BRAKE SHOE



Contact Surface

AMERICAN BRAKE SHOE & FOUNDRY CO.

N. J. HOLDEN, Agent, 18 ST. PETER ST., MONTREAL

MISCELLANEOUS IRON AND
STEEL CASTINGS

Material of driving wheel centres.....	cast iron
Diameter and length of driving journals.....	8 in.
.....dia. x 9 in. long	
" of cylinders.....	19 ins.
Stroke of cylinders.....	24 ins.
Working pressure of boiler.....	180 lbs.
Number of tubes.....	239
Diameter of tubes.....	2 ins.
Length of tubes.....	12 ft. 4 ins.
Brakes.....	Westinghouse American
Kind of packing.....	metallic
Truck wheels.....	cast iron, double plate
Diameter of truck wheels.....	28 ins.
Weight of tender, loaded.....	96,000 lbs.
Capacity of tank.....	4,000 imp. gallons
Style of tank.....	U shape
Coal capacity.....	8 tons
Style of truck.....	4 wheel
Diameter of wheel.....	33 in.
Kind of wheel.....	cast iron, double plate
Diameter and length of journal.....	5 ins. dia. x 9 ins. long, M.C.B.

The specifications of the other two locomotives are similar in every respect, except that the weight in working order on drivers will be 111,000 lbs., and the total weight, 137,500 lbs.

The locomotive of which an illustration is given on page 147, is probably the oldest in active service in Canada. It is used on the Carillon and Grenville Ry., a 5 ft. 6 in. gauge line operated during the season of navigation by the Ottawa River Navigation Co. between Carillon and Grenville, Que., 13 miles, to connect the upper and lower stretches of navigation on the Ottawa River. The locomotive was built at Birkenhead, Eng., for the G.T.R. in 1857, and has been but slightly altered in general appearance since then. J. E. Halsey, General Superintendent of the line at Carillon, has supplied the following description:—"The cylinders are inclined up 15 in. diameter by 20 in. stroke; cylinders are outside, with valves of the old-fashioned D pattern, inside smoke box, and so placed as to work on their edges, as it were with their backs facing each other. They are connected direct to the pulling link. The link on this engine does not lift; the pulling link is connected to the reversing shaft, and as the shaft reverses the link block moves up and down in link. She has a good steady valve gear, as the link is supported on both sides by hangers, and works on a permanent shaft. The boiler is 48 in. diameter at smoke box end, and there are 180 brass flues 1½ in. diameter, 10 ft. 6 in. long; fire box 3 ft. 6 in. by 3 ft. 10 in. and 4 ft. high. The fire box and boiler are both made of Low Moor iron; flue sheet ½ in. thick; fire box sheets ¾ in. thick. The rigid wheel base is 7 ft.; total length of engine 21 ft. The tender is 17 ft. 6 in.; total length of engine and tender 38 ft. 6 in. The diameter of driving wheels is 60 in.; truck of the bogie type, with 26 in. wheels. This engine is a good steamer, and very economical in fuel, and can go a steady speed of 30 miles an hour."

The Intercolonial Ry. has been awarded a gold medal and diploma for its display at the Louisiana Purchase Exposition last year.

The Supreme Court of Canada has rendered a decision on the questions submitted to it by the Dominion Government, as to the respective powers of the Dominion and the Provinces in the matter of legislation for the better observation of Sunday. The court held that it was not within the powers of the provinces to pass acts similar to the terms of the draft bill submitted, such bill being undistinguishable from that which the Imperial Privy Council had already pronounced against in the case of the Hamilton Street Ry. The Privy Council held that such an act as was brought before it notice was ultra vires of the Provincial Legislature. The court added that legislation having as its object the compulsory observance of Sunday, or the fixing of rules of conduct (with the usual sanctions) to be followed on that day, was legislation falling within the jurisdiction of the Dominion Parliament.

C.P.R. Earnings, Expenses, Etc.

Gross earnings, working expenses, net profits, increases or decreases over 1903-04, from July 1, 1904:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July	\$4,398,833.05	\$2,949,181.81	\$1,449,652.14	\$11,125.02+
Aug.	4,474,237.04	2,946,307.21	1,527,930.43	93,827.93+
Sept.	4,220,876.03	2,952,068.47	1,268,807.56	66,541.75+
Oct.	4,743,961.93	3,177,848.02	1,566,113.91	87,913.10+
Nov.	4,751,970.43	3,082,395.69	1,669,574.74	191,593.56+
Dec.	4,562,142.45	2,899,473.62	1,662,668.83	81,523.57+
Jan.	3,252,501.93	2,829,833.46	422,668.47	65,016.44+

\$30,404,424.36 \$20,837,108.28 \$9,567,416.08 \$541,715.17+

Approximate earnings for Feb., \$3,022,000 against \$2,506,000 for Feb., 1904.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Jan., \$199,001.29; net earnings, \$59,235.32 against \$178,356.22 gross and \$44,316.07 net for Jan., 1904. Net earnings for seven months ended Jan. 31, 1905, \$529,168.09, against \$508,089.73 for same period, 1904-05. Approximate earnings for Feb., \$183,736 against \$165,780 for Feb., 1904.

MINERAL RANGE RY.—Approximate earnings for Feb., \$52,241, against \$46,051 for Feb., 1904.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Jan., \$662,827.76; net earnings \$355,103.79 against \$307,423.97 gross and \$181,023.42 net for Jan., 1904. Net earnings for seven months ended Jan. 31, 1905, \$2,771,763.51 against \$2,308,651.67 for same period 1903-04. Approximate earnings for Feb., \$520,199, against \$402,007 for Feb., 1904.

Canadian Pacific Railway Land Sales.

	Acres.	Amount.	
	1904-05	1903-04	1904-05
July	36,425.75	267,647.32	\$177,473.94
Aug.	15,669.90	263,339.45	88,735.88
Sept.	16,470.02	60,441.12	73,642.96
Oct.	23,792.84	15,950.07	104,843.47
Nov.	23,392.84	22,563.95	112,261.70
Dec.	32,196.59	30,146.00	142,583.40
Jan.	34,500.41	116,840.78	141,750.50
Feb.	27,593.56	14,720.99	116,278.76
	209,951.91	791,659.38	\$957,570.61
			\$3,490,424.12

Grand Trunk Ry. Earnings, Expenses, &c.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1905.	1904.	Increase.	Decrease.
Jan.....	\$2,550,340	\$2,253,378	\$302,962	
Feb.....	2,193,683	1,049,325	514,158	
	\$4,720,023	\$3,902,903	\$817,120	

GRAND TRUNK RY. CO.

	1905.	1904.	Increase.	Decrease.
Revenue for Jan.:				
Gross receipts.....	\$2412,000	\$2355,300	\$56,700	
Working expenses.....	321,000	317,000	4,000	
Net profit.....	\$219,000	\$238,300	\$52,700	

GRAND TRUNK WESTERN RY. CO.

	1905.	1904.	Increase.	Decrease.
Revenue for Jan.:				
Gross receipts.....	\$87,000	\$83,500	\$3,500	
Working exp's.....	77,400	77,000	400	
Net profit.....	\$9,600	\$6,500	\$3,100	

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.

	1905.	1904.	Increase.	Decrease.
Revenue for Jan.:				
Gross receipts.....	\$26,100	\$24,100	\$2,000	
Working expenses.....	18,000	16,600	1,400	
Net profit.....	\$8,100	\$7,500	\$600	

TRAFFIC RECEIPTS OF THE SYSTEM.

The following figures relate to the individual lines, and are made out in sterling:

	1905.	1904.	Increase.	Decrease.
Aggregate from Jan. 1 to Feb. 28:				
Grand Trunk.....	£762,699	£616,276	£146,423	
G. T. Western.....	162,276	145,792	16,484	
D. G. H. & M.....	44,894	39,899	4,995	
Total.....	£969,869	£801,967	£167,902	

The C.P.R. and the G.T.R. have asked Toronto wholesale merchants to confer together and agree upon an arrangement whereby they would bring all their shipments of goods from Great Britain by way of one or other of the systems, with a view of benefiting the steamer lines trading to Canada.

Canadian Northern Ry. Construction.

Winnipeg Terminals.—The Manitoba Legislature last session passed an act guaranteeing bonds to the extent of \$1,000,000 to provide for the construction of adequate terminals in Winnipeg, Man. The present terminal facilities in Winnipeg are those formerly used by the old Northern Pacific and Manitoba Ry., and have been regarded as being only temporary, pending the completion of arrangements for the construction of a new station and yards. In connection with its plans the company has secured Fort Garry Park, and has arranged with the city council for the closing of Broadway from Main St. to the Red River. The probability is that the new station will be erected on Broadway at Main St., and that there will be an hotel in connection with it. The plans involve the construction of a double-track bridge over the Assiniboine River, and a line to connect the terminals with the branch to Oak Point. The package freight sheds will remain as at present, at Water St., the larger freight being handled at the Port Rouge yards. The plans, however, are not yet finally completed, and nothing definite can be said as to when construction will be proceeded with, though it is likely to be started in the spring.

Branch Line Construction.—An act was passed at the recent session of the Manitoba Legislature guaranteeing the company's bonds at the rate of \$10,000 a mile for the construction of 180 miles of branch lines in the province as follows:—

From Carberry to Brandon, thence generally westerly to the westerly boundary of the province, about 100 miles.

From near Winnipeg generally easterly for 25 miles.

From some point on the last mentioned line northerly to Bird's Hill, about 7 miles.

From between Winnipeg and Oak Point, crossing the Assiniboine River and connecting with the company's line between St. Charles and Winnipeg, about seven miles.

From the present terminus of the line running east from Emerson easterly to connect with the main line from Port Arthur to Winnipeg, between Woodridge and Sprague, about 50 miles.

Oak Point Branch.—This line at present has its southern terminus on the C.P.R. main line about 3 miles west of Main St., Winnipeg. It is intended to extend the line south, across the Assiniboine River, and to connect it with the old Northern Pacific Ry. line to Portage la Prairie, which is now part of the C.N.R. main line.

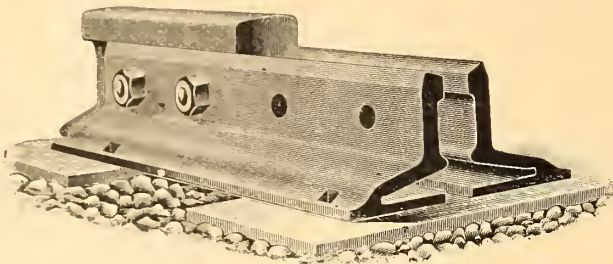
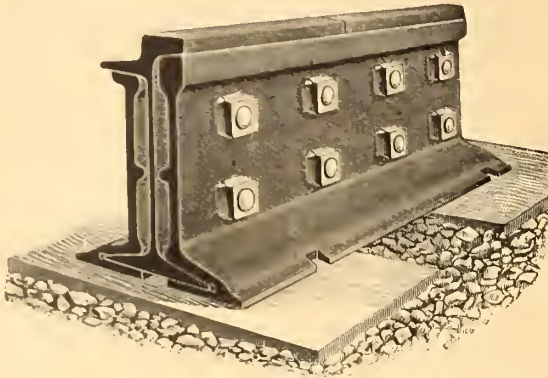
Grand View Extension.—The first C.N.R. train crossed the North Saskatchewan River, Feb. 17, and tracklaying is being pushed towards Battleford.

Prince Albert Extension.—The Board of Railway Commissioners has approved of the plans for the construction of a bridge across the South Saskatchewan River. The point of crossing is in sec. 5, tp. 47a, range 25, west of the second principal meridian, about 15 miles east of Prince Albert. The bridge will consist of six steel deck spans, each 180 ft. long, with about 600 ft. of trestle approaches. The piers will be of concrete, faced with steel plate. The height from low water to the top of the piers will be 48 ft.; and to base of rail, 85 ft. The contract for the erection of the piers and abutments has been let to J. Grinn & Sons, Winnipeg, Man.

New Branch Lines in Alberta and Assinibola.

—The C. N. Ry. is applying at the current session of the Dominion Parliament for an act authorizing the construction of the following railways: From Regina, Assa, to the Red Deer River, Alta., with a branch west of the Saskatchewan River to tp. 45, range 4, west of the third meridian; from Regina to Humboldt, thence via the Carrot River to

Railroad Essentials.



The day has passed when men of finance are willing to place their money into bad material in railroad construction only to be compelled to replace it by renewals or reconstruction after very little use. Many of the best and most successful steam and electric railroads use the rail joints of the Continuous patent type for standard track work, insulated joints, step joints, and electric bonding joints for the reason that experience has proven it to be the best appliance of its kind ever put upon the market, as evidenced by the fact that it is used in all parts of the world on over 20,000 miles of track.

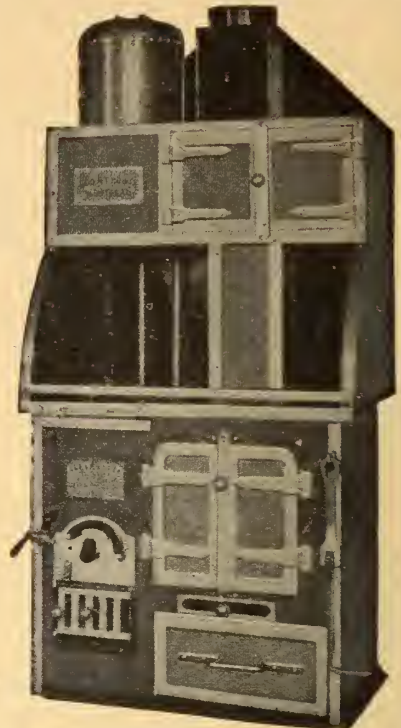
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QUEBEC TORONTO

Pas Mission, on the Saskatchewan River; from near Humboldt to a point near the crossing of the Saskatchewan River by the company's Prince Albert branch; and from some point on the main line under construction west of Battleford, into Battleford. Securities to the extent of \$20,000 a mile may be issued in connection with the construction of these branch lines.

C.P.R. Betterments, Construction, Etc.

Atlantle Division.—The whole of the main line having been relaid with heavy steel rails, it is proposed to commence placing 72 lb. steel on the branch lines, and a commencement will be made by relaying the Carleton branch from Bay Shore yard to Sand Point, St. John, N.B. A number of new steel bridges will be erected to complete the rebuilding of those on the main line. Some small changes will be made in the way of reducing gradients and eliminating curvature; new sidings will be constructed at various points, and additional ballast will be put on the line, particularly on the Moosehead, Brownville and St. John sections.

Eastern Division Improvements.—A press report states that it is proposed to construct a new piece of line to follow the valley of the St. Francis River, passing about a mile east of East Angus, going towards the north up to the township of Bury and passing through Gould and Stornoway before reaching Lake Megantic. This would give a better line than is now operated over between Lennoxville and Megantic, Que. We are advised that the report is premature.

Place Viger Yards Extension.—A settlement has been arrived at between the C.P.R. and the owners of some of the properties affected by the proposed extension of the Place Viger yards, Montreal, and the matter is again being considered by the city council.

Northern Colonization Ry.—A further extension of this line is in contemplation, the proposal being to construct from the present terminal at Nominique to Rapide de l'Original, Que., about 35 miles.

Ottawa, Northern and Western Ry.—The company's application for an extension of five years for the construction of the projected lines from Shawville towards Pembroke and other points on the upper Ottawa River, has been approved by the Railway Committee of the House of Commons.

A New Don Valley Line.—The C.P.R. has filed plans showing a line along the Don valley in Toronto, for the purpose of serving the industries located along the river. The Board of Control has decided to oppose the construction of such a line, it being considered that if undertaken at all it should be owned by the city.

Toronto-Sudbury Line.—The section of this line now under construction is from Romford on the Transcontinental line, southerly to Byng Inlet, about 60 miles, and considerable progress is being made. As there is a lot of rock work to be done, blasting operations have been carried on all winter. There will be a number of bridges on the line, the largest of which will be at the crossing of the French River. The maximum gradient is $\frac{3}{8}$ of 1%, or about 16 ft. to the mile. The contractors are Foley Bros.

Guelph and Goderich Ry.—The grading for this line from Guelph to Goderich, Ont., 80 miles, is reported to be practically completed. Tracklaying will be commenced early in the spring.

Fort William to Kaministiquia River.—We are advised that although the question of constructing a line from Fort William to the Kaministiquia River near the Kakabeka Falls has been discussed, no decision has been

reached as to whether or not anything will be done.

Otterburn to Stuartburn.—Application is being made at the current session of the Dominion Parliament for an act extending the time for the construction of a line from Otterburn on the Emerson branch, south-easterly to Stuartburn.

Winnipeg Station.—The office buildings at the new station were expected to be completed by the end of March, and that the staffs of the various departments would take possession immediately the whole building was completed.

Manitoba Branches.—The C.P.R. is applying at the current session of the Dominion Parliament for an act extending for five years the time within which it may complete the construction of the branch lines authorized by its act of 1900. These include a number of branch lines in Manitoba, which have been partially constructed. A deputation from Lauder, Man., attended before the Railway Committee of the House of Commons and opposed the granting of any further extension of the branch from Napinka.

Reston-Wolseley Line.—In reference to the proposed branch line from Reston, Man., to Wolseley, Assa., we are informed that it has not been definitely decided whether it will be built this year or not.

Darlingford to Kaleida.—A line from Darlingford, on the Pembina Mountain branch, to Kaleida, Man., about 6 miles southwest, will be constructed during the year. A contract for the grading has been let to Jackson and McMenemy, Winnipeg.

Brookdale to Varcoe.—A contract has been let for the construction of an extension of the Brookdale branch, which extends from McGregor to Brookdale, Man., 36 miles, to Varcoe on the Rapid City section. The extension is 18 miles in length. J. D. McArthur, Winnipeg, Man., is the contractor.

Pheasant Hills Branch.—The extension of this branch from Lipton to Strassburg, Assa., 56 miles, is under construction, the contractors being Foley Bros., Larson & Co., St. Paul, Minn.

Moose Jaw-Swift Current Diversion.—During the past year the company completed the construction of a diversion on this section, about 65 miles of new track having been laid. The old line will be abandoned.

Columbia and Western Ry.—The House of Commons has given a second reading to the bill providing for an extension of time for the construction of the line. Of the lines projected there has been constructed a line from Nelson to Midway, B.C., 126.7 miles, and some branch lines. The C.P.R., which operates the line under lease, proposes to extend the line from Midway to Penticton.

Kootenay Central Ry.—The surveys for the location of this projected railway have not, we are advised, been completed, and it is impossible at present to state whether there will be any construction this year on the line, which is to extend from Fort Steele to Golden, B.C.

New Westminster to Vancouver.—The C.P.R. is applying at the current session of the Dominion Parliament for an act extending the time for the construction of its projected branch from New Westminster to Vancouver, B.C.

The Temiskaming and Northern Ontario Ry. issued time table No. 1, effective Mar. 5. It shows passenger trains leaving North Bay (C.P.R. station), Mondays, Wednesdays, and Fridays, and New Liskeard, Tuesdays, Thursdays, and Saturdays; mixed trains leave North Bay Tuesdays, Thursdays, and Saturdays, returning Mondays, Wednesdays, and Fridays.

G.T.R. Betterments, Construction, Etc.

Notre Dame de Grace Yards. The Board of Railway Commissioners has authorized the company to expropriate some land owned by the corporations of Ste. Cunegonde and St. Henri, for further yard extensions. We are advised the plans are not yet matured, and it has not been decided what work will be undertaken during the coming year. Press reports, however, state that the work will involve the expenditure of \$1,000,000, and that the yards when completed will have a capacity of 7,500 cars, with round-houses, etc.

The Mimico Yards. The plans of the new yards and terminals at Mimico, Ont., are not completed, and we are advised that nothing further will be done until after the spring has opened up. The purpose is to make the Mimico yards the point for handling the freight trains for places west of Toronto, and to use the East Toronto yards for the freight trains for eastern points, retaining the Toronto yards for the receipt, delivery and handling the freight to and from the city only.

Niagara-Sarnia Double-Track Work.—With the exception of a portion of the second track between Lynden and Hamilton, Ont., the work taken in hand last year on this section of the line has been completed. A contract has been let to Ross and McRae, who have been engaged on similar work on other sections of the line, to construct a second track on the section between King court Jet. and Komoka, Ont., 27 miles, the work to be completed during the summer. The Company's road department will, as usual, lay ties and rails, and do the ballasting, etc.

Stratford Shops. The additions to the locomotive repair shops at Stratford, Ont., have been completed.

London Improvements.—The new round-house at London, Ont., has been taken over from the contractors and placed in use. The coal chutes at the east end are to be enlarged so as to coal double the number of locomotives which its present capacity will allow.

Grand Trunk Western Second Track.—The second track work between Port Huron, Mich. and Chicago, Ill., 335 miles, has been completed, with the exception of about 5½ miles at Valparaiso, Ind. The gradients on the line have been reduced from $1\frac{1}{4}$ % to $\frac{1}{2}$ % of 1% eastbound, and to $\frac{1}{3}$ % of 1% westbound, and all the temporary bridges, etc., have been replaced by permanent structures.

Battle Creek Improvements.—We are advised that the press reports that the G.T.R. proposed to spend in the neighborhood of \$1,500,000 upon locomotive and car shops at Battle Creek, Mich., are altogether incorrect. It is intended, however, to build a new station there in the near future, and land has been purchased for the erection of shops. The plans and specifications for these works have not been prepared, and until this is done it is impossible to state what the improvements will cost.

The Railway Committee of the House of Commons has thrown out the bill which proposed to provide for the better protection of railway crossings in cities, towns and villages. F. H. Chrysler, K.C., who appeared before the committee on behalf of the railway companies, said the railway Act covered every imaginable case, and the bill was unnecessary and mischievous. The C.P.R. had 80 crossings, and the G.T.R., 783, so that it could be seen that there must be about 2,000 crossings in Canada, and if each had to be protected, as the bill proposed, it would mean a very large expenditure, as the gates and watchman at each crossing cost about \$1,000 a year.

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General Offices : 43 Exchange Place, NEW YORK

Grand Trunk Pacific Railway.

Survey parties are in the field over the whole country between Moncton, N.B., and Winnipeg, Man., described as the Eastern Division of the Transcontinental Ry. The projected route is divided into six districts, the headquarters and division engineers in charge being:—Fredericton, G. C. Dunn; Quebec, A. E. Doucet; Ottawa, A. N. Molesworth; New Liskeard, Ont., appointment not made; Nepigon, Ont., C. E. Perry (acting); Winnipeg, Man., Major Hodgins. It is not likely that any tenders will be asked for until the fall so that work may be gone on with during the winter. Construction, according to Sec. 10, Chap. 24, 1904, must be commenced simultaneously at Moncton, N.B.; Quebec; at the point of junction of the Eastern Division with the branch southerly to a point at, or near, either North Bay or Nipissing, Ont., and at Winnipeg, and shall be carried on westerly from Moncton, eastward and westward from Quebec, and from the point of junction with the North Bay branch, and eastward from Winnipeg, in order that the whole line between Moncton and Winnipeg shall be completed as nearly as practicable at the same time. The specifications for construction are being prepared, a considerable portion of the work being completed. H. A. Wood, Assistant Chief Engineer G.T.P. Ry., is acting with the commissioner's engineers in arranging the specifications, etc., in conformity with the provisions of section seven of the agreement between the Government and the G.T.P. Ry., confirmed by Chap. 71 of the Statutes of 1903. This section sets forth that in order to protect the interests of the lessees of the Eastern Division, it is agreed that the specifications be submitted to, and approved of by, the G.T.P. Ry. before the commencement of work, and that the work shall be done according to the specifications, and shall be subject to the supervision and inspection of the chief engineer appointed by the Government and the chief engineer of the company. In the case of differences between these engineers an arbitrator is to be chosen by them, or appointed by the Chief Justice of the Supreme Court, if the engineers cannot agree on one.

In connection with the surveys upon the eastern section of the Grand Trunk Pacific Ry. between Moncton, N.B., and Winnipeg, Man., which is to be constructed by the Transcontinental Railway Commissioners, the annual report of the Department of Public Works contains the following paragraph:—"The despatching of so many engineering parties at the same time as the surveying work of the Transcontinental Ry. was being commenced has given employment to a large number of Canadian engineers. It has been found on the formation of parties that the engineering profession in Canada was fully equal to the demand made upon it for the professional equipment which is required for the explorations and studies necessitated by the extensive surveys for those two great works. All the engineering staff has been supplied by Canadian intelligence and professional training, and there is no doubt that the profession in Canada is fully able to render a good account of itself in the performance of the arduous duties connected with the examinations now under way."

Answering questions in the House of Commons the Minister of Railways stated recently that no accurate information was available as to the progress of surveys. The Commission was directed to present an annual report, and, although interim reports had probably been sent in, no final reports had been presented to the department. The survey parties on the whole of the route from Moncton to Winnipeg are in the field. Reports of the engineers between Quebec and

Moncton state that a route has been found round the shoulder of the State of Maine giving a grade of 4-10 of 1% going east, and 6-10 of 1% going west.

A return made to the House of Commons shows that there are 30 persons on the staff of the Transcontinental Railway Commission, exclusive of the Commissioners:—Their salaries are: H. D. Lumsden, \$500 a month; M. J. Butler, \$375; A. W. H. Sampson, \$125; C. J. Jones, \$80; Fred Dillon, \$80; A. L. Ogilvie, \$150; R. L. Landry, \$70; Alice Seed, \$25; R. M. J. McGill, \$125; Jos. Clement, \$100; R. H. Lang, \$60; H. A. Collins, \$85; John Meghorn, \$75; R. Roman, \$70; D. Lefebvre, \$20; P. E. Ryan, \$208.33; R. F. Omacke, \$150; J. H. Roy, \$100; O. P. Schreiber, \$60; F. McCourt, \$70; P. Wright, \$30; F. W. White, \$100; G. O'Reilly, \$15 a week; A. T. Gow, \$150 a month; W. R. Saults, \$75; R. Lagimodiere, \$60; A. Beaudry, \$70; C. Heidmann, \$80; R. Larocque, \$70; J. O'Malley, \$50. No allowances are made except for actual travelling expenses. The engineers in charge of parties are appointed by the Board upon the recommendation of the Chief Engineer. The engineering parties were made up in the first place by the Board on the recommendation of the chief and district engineers, and changes in same are made upon the recommendation of the chief of parties and the district engineers and approved of by the chief engineer. The engineers in charge of parties report to the district engineers, who report to the Chief Engineer, and he reports to the Board. Interim reports are received from time to time from the parties in the field and district engineers.

The plans submitted to the Department of Railways by the G.T. Pacific Ry. provide for large terminals at both Port Arthur and Fort William, Ont., and on the Pacific coast. These plans, it has been explained, were deposited to secure available sites from which the final sites would be selected. The Minister of Railways, replying to a question in the House of Commons recently, stated that certain plans had been deposited, but they were not available. The surveys are being prosecuted from Winnipeg to the coast by a large number of parties, and a report from A. S. Going, who has been in the mountains since August, 1904, states that nine passes are available for a line in northern B.C. These are Yellowhead, Peace River, Pine River, Smoky and North Smoky, Porenpine, two in the Red Deer district, and the Wapiti pass. F. M. Morse, Vice-President and General Manager, and other officials are expected to return to Montreal, April 1, from a trip to Victoria and intermediate points. At Port Arthur he stated that construction would be commenced in the spring at Winnipeg, as well as on the line from Lake Superior northerly. The money for the construction of the line, he said, had been raised in a lump sum, so that construction would not be delayed no matter what economic conditions the market may have in store. So far as the Lake terminals are concerned, the Government has approved of the expropriation of 1,600 acres of the Indian Reserve at Fort William, Ont., for this purpose, but has not taken any action in regard to the proposed terminal at Port Arthur.

The visit of the Vice-President to the west was largely for the purpose of carrying on negotiations with the B.C. Government with the view of obtaining a subsidy in aid of the construction of the 480 miles of line to be constructed in that province. Reports state that the Provincial Government was asked to set aside approximately 7,000,000 acres of land as a subsidy, and that the proposition is not viewed with much favor by the Cabinet. Speaking at Victoria, Mar. 10, before leaving for the east, Mr. Morse stated that it had been decided to construct the line from east to west as being the more eco-

nomical plan. Should a start be made on the Pacific coast the cost would be much greater and the company could not change its policy without assistance from the Provincial Government either in land or cash. The financial arrangements for the construction of the line from Winnipeg to the Rocky Mountains had been completed, and it was important that the company should arrange for the balance of the line while the money market was in its present condition. No portion of the road would be suspended while others were being constructed; every section must bring its returns as soon as ready for traffic. The line would have connection with Vancouver Island and the southern portion of the province.

TRANSPORTATION APPOINTMENTS.

Canadian Northern Ry.—H. J. Cowie has been appointed European Freight Agent with offices at Liverpool, Eng.

Canadian Pacific Ry.—W. M. Kirkpatrick, heretofore Assistant General Freight Agent at Vancouver, B.C., is acting Export Agent at Montreal, on account of the illness of A. E. Cook.

W. T. Robson has been appointed Advertising Agent, vice C. A. Bramble, resigned. Office, Montreal.

F. O'Hara, heretofore bridge and building foreman at Sherbrooke, Que., has been appointed Bridge and Building Master at Ottawa, succeeding E. Best.

W. McLroy, heretofore C.P.R. ticket and passenger agent and Dominion Ex. agent at Galt, Ont., has been appointed C.P.R. town ticket agent at Peterboro, Ont., succeeding T. E. Boddy, resigned.

J. W. Leonard, Manager of Construction Toronto and Sudbury branch, and President Guelph and Goderich Ry., is about to remove his office from the Union Station to 118 King St. West, Toronto.

F. S. Darling, Division Engineer of Construction, is about to be removed from Montreal to Toronto, where his office will be at 118 King St. West.

W. Malcolm has been appointed C.P.R. ticket and passenger agent and Dominion Ex. agent at Galt, Ont., succeeding W. McLroy, his former chief, transferred to Peterboro, Ont.

D. G. McKay, heretofore station master, has been appointed General Yard Master at Winnipeg, succeeding F. G. Arnold, transferred.

W. R. Hogarth has been appointed station master at Winnipeg, succeeding D. G. McKay, promoted.

W. C. Bowles, heretofore Assistant General Freight Agent, Western Division, has been appointed Assistant General Freight Agent, Pacific Division, succeeding W. M. Kirkpatrick, promoted. Office, Vancouver, B.C.

G. H. Smith, heretofore chief clerk in the Freight Traffic Manager's office, Montreal, has been appointed Assistant General Freight Agent, Western Division, succeeding W. C. Bowles. Office, Calgary, Alta.

The operation of the Esquimalt and Nanaimo Ry. is expected to be taken over by the C.P.R. April 1, and will be in charge of J. Goodfellow, heretofore Trainmaster C.P.R. at Vancouver, with the title of Assistant Superintendent. Office, Victoria, B.C.

Grand Trunk Pacific Ry.—H. A. Wood has been appointed Assistant Chief Engineer, and it is stated that his duties will be to act in conjunction with the Transcontinental Railway Commission for the eastern division from Moncton, N.B., to Winnipeg, Man.; and in connection with the branch line to North Bay, the Lake Superior branch and any other branch lines from the Eastern Division. J. R. Stephens, who has been Assistant Chief Engineer for some time past, will,

it is said, have charge of the line from Winnipeg west. The company has engineering offices at North Bay, Ont.; Winnipeg, Man., and Edmonton, Alta.

Grand Trunk Ry.—F. L. C. Bond, heretofore Acting Resident Engineer, has been appointed Resident Engineer, Eastern Division. Office, Montreal.

J. R. Melville, heretofore excursion clerk,

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Sailing from New York, Saturdays, at
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Sailing from New York on Saturdays.

DOMINION LINE.

MONTREAL TO LIVERPOOL.

MONTREAL TO AVONMOUTH DOCKS,
(Bristol and Antwerp.)

LEYLAND LINE.

BOSTON — LIVERPOOL.

Sailing from Boston on Saturdays.

RED STAR LINE.

NEW YORK — ANTWERP — LONDON — PARIS.

Calling at Dover for London and Paris.
Sailing from New York, Sat-
urdays, at 10.30 a.m.

WHITE STAR LINE

NEW YORK — QUEENSTOWN —
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Regular Weekly Service.

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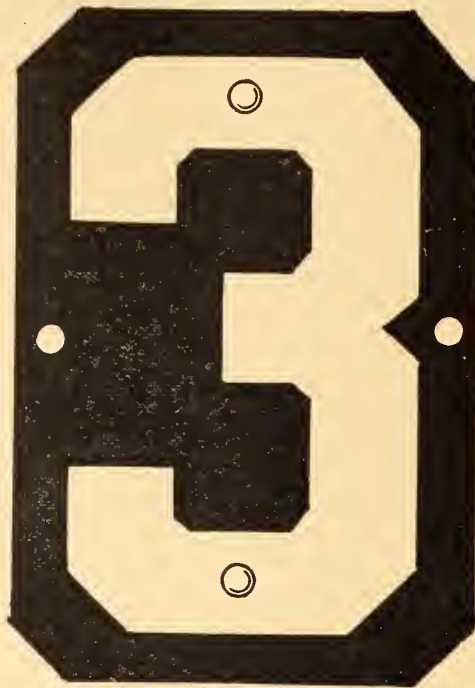
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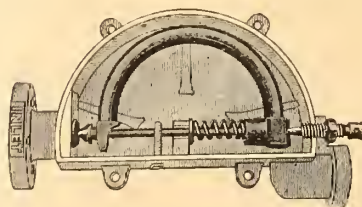
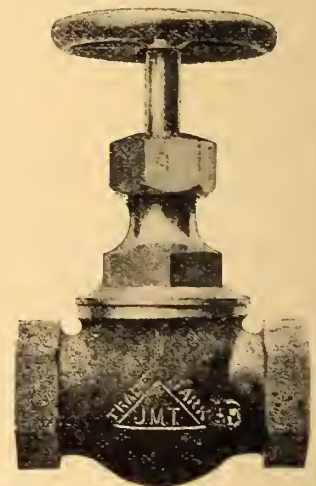
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IRON AND BRASS PIPE AND
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from 15 to 20 per cent. in
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THE JAMES MORRISON BRASS MFG. CO., LIMITED
TORONTO, ONT.

has been appointed chief clerk in the General Passenger and Ticket Agent's office, Montreal, succeeding G. A. Morency, resigned on account of ill-health.

C. W. Johnston, heretofore Travelling Passenger agent, Montreal, has been appointed excursion clerk, succeeding J. R. Melville, promoted.

A. E. Duff, heretofore agent at St. Lambert, Que., has been appointed Travelling Passenger Agent, succeeding C. W. Johnston, promoted. Headquarters, Montreal.

J. J. Connolly has been appointed Chief Train Dispatcher 2nd district west of Richmond, Que., and 4th and 5th districts, Eastern Division.

The following agents have been appointed: St. Catharines, Ont., G. D. Baxter; Thorold, Ont., S. J. Roy; Buffalo Freight, N.Y., J. Gray.

London Street Ry.—H. Smith, heretofore Assistant Superintendent, has been appointed Claims Agent.

E. Whittaker, of Toronto, has been appointed Assistant Superintendent, succeeding H. Smith, promoted.

New York Central and Hudson River Rd.—The titles of First, Second, Third, Fourth and Fifth Vice-Presidents have been abolished and in future the officers heretofore known by these titles will be called Vice-Presidents, and whenever it is necessary to distinguish one from the other the name of the department will be added to the title. N. Guilford has been appointed a Vice-President, bringing the number up to six.

Niagara Navigation Co.—W. E. Tibbitts has been appointed General Freight and Baggage Agent, and not General Baggage Agent, as stated in our last issue.

Quebec Central Ry.—Thos. Lindley, heretofore Secretary, has been appointed a director, succeeding the late Jos. Price, and is succeeded as Secretary by C. D. Brassey. Offices, London, Eng.

Richelle and Ontario Navigation Co.—M. Cussen, heretofore Auditor of Passenger Receipts, has been appointed Auditor of Freight and Passenger Receipts. The office of Auditor of Freight Receipts has been abolished.

The following changes in territorial assignments have been made:—H. Foster Chaffee, Western Passenger Agent. Headquarters, Toronto. In charge of passenger business in the cities of Toronto and Hamilton, and the province of Ontario west and north thereof, also in the state of Pennsylvania west of but not including the line from Cleveland to Pittsburgh, also states of Ohio, Michigan, Indiana and Illinois. W. F. Cloney, Travelling Passenger Agent. Headquarters, Niagara Falls, N.Y. Territory, United States, west, north-west and southwest of Western Passenger Agent's Territory, also the cities of Cleveland and Pittsburgh, and points between Buffalo and these cities. T. Glynn, Travelling Passenger Agent in same territory as Mr. Chaffee, to whom he will report. J. W. Canvin, Travelling Passenger Agent. Headquarters, Alexandria Bay, N.Y. Territory, state of New York east of Rochester, the New England states and cities of Philadelphia, Baltimore and Washington.

R. A. Carter has been appointed Division Freight and Passenger Agent, in charge of all freight traffic west of Montreal, and in charge of passenger business on company's line between Montreal and Toronto, but not including those cities. Office, Toronto.

H. Dubois has been appointed Travelling Freight and Passenger Agent for Montreal and east on company's line. Headquarters, Montreal.

Temiskaming and Northern Ontario Ry.—In March, E. Gurney, M. J. O'Brien, F. E. Leonard and B. W. Folger, resigned their positions as members of the Commission. The Chairman, R. Jaffray, resigned in Feb-

ruary. The Ontario Government has appointed C. B. Smith, C.E., Toronto; D. Murphy, Ottawa, and J. L. Englehart, Petrolia, Ont., members of the Commission. Premier Whitney subsequently stated that no further appointments would be made to the Commission. C. B. Smith has been elected Chairman of the Commission, and it is stated that the Government will ask for an amendment to the act constituting the Commission in order that the honorarium of the Chairman might be made \$3,000 a year, and that the two other Commissioners will receive the same honorarium as their predecessors, \$1,000 a year each. The new Commissioners, at their first meeting, decided not to make any changes in the staff at present.

J. H. Black, who was first appointed General Freight and Passenger Agent, was subsequently appointed Superintendent and Traffic Manager by the Commissioners, who have since resigned.

The officials having charge of the operations of the line are: Superintendent and Traffic Manager, J. H. Black; Trainmaster, Jno. Judge; Chief Dispatcher, D. H. Campbell. Offices, North Bay.

MAINLY ABOUT PEOPLE.

E. A. James, Manager Canadian Northern Ry., has returned to Winnipeg after a trip to Mexico.

D. L. Lockerby, who died in Montreal Feb. 26, was a director of the Midland Ry. of Nova Scotia.

E. Egg, brother of W. F. Egg, formerly C.P.R. city ticket agent, Montreal, died there Mar. 3, aged 32.

J. W. Aston, of Collingwood, has been appointed Chief Engineer of the Toronto Ferry Co.'s ferry boats.

H. Cleveland, Chief Engineer, Orford Mountain Ry., dropped dead at the C.P.R. station, Sherbrooke, Que., Feb. 24.

Mrs. McPeake, wife of the Superintendent of the New Brunswick Southern Ry., died at St. John, N.B., Feb. 23.

A. C. Burgess, who died at Lansdowne, Ont., recently, for some years conducted a number of refreshment rooms on the C.P.R.

W. F. Egg, ex-city passenger agent, C.P.R., at Montreal, left there Mar. 9, to spend a few weeks at Mount Clemens, Mich.

G. R. Harris, who died at Brookline, Mass., Mar. 13, was a director of the C.P.R., having been first elected to the Board in 1885.

Senator G. T. Fulford is G.T.R. city ticket agent at Brockville, Ont., and not C.P.R. city ticket agent as stated in our last issue.

G. I. Gwilliam, of the Cumberland Ry. and Coal Co., was married at Springhill, N.S., Feb. 23, to Miss B. Day, of Lockport, N.S.

E. F. Phillips, of the Eugene F. Phillips Electrical Works, Montreal, died recently at Phillipsdale, R.I., where he had a factory.

Miss Hardisty, who died in Montreal, Feb. 26, was a sister of G. W. Hardisty, Passenger Agent at Montreal for the Northern Pacific Ry.

S. Fraser, who died at Amherstburg, Ont., Feb. 26, aged 70, was in early life a contractor on the construction of the Great Western Ry.

W. Robinson, Superintendent Niagara, St. Catharines and Toronto Ry., had his right arm broken recently by the brake handle of a snow plow.

Alex. Maekenzie, who died in Marine City, Mich., recently, was a civil engineer, and for some years was engaged in construction work for the C.P.R.

H. J. Beemer, contractor, formerly of Montreal and Ottawa, is now mining in Arizona,

and is building a railway from Congress Junction to the mine.

W. C. McGreevy, an engineer employed by the Canadian Northern Ry. in connection with its land grant, died suddenly at Winnipeg, Man., Mar. 12.

W. Luxton was presented recently with an address and a purse of money on leaving Sydney, N.S., where he had been Superintendent of the Cape Breton Electric Co.

Lord Strathcona, who arrived at Montreal from London, Eng., recently, has contributed \$1,000 towards the building fund of the Royal Jubilee Hospital, Rat Portage, Ont.

D. A. Story, Division Freight Agent, Intercolonial Ry., Halifax, N.S., has been off duty for some time owing to illness, but was reported on Mar. 8 to be recovering.

Jno. Hall, formerly G.T.R. locomotive foreman at Hamilton, Ont., is recovering from the effects of injuries sustained from a fall down the cellar steps in his house.

G. A. Morency, who recently resigned his position as chief clerk of the G.T.R. General Passenger Agent's office, on account of ill-health, is staying at Saranac Lake, N.Y.

Hugh Sutherland, Executive agent Canadian Northern Ry., is interested in a proposal to take a supply of water to Winnipeg, from a point on the Winnipeg River, 54 miles distant.

A. W. Smithers, Vice-President G.T.R., has been elected Chairman of the English Association of American Bond and Shareholders, London, Eng., succeeding the late Jos. Price.

H. K. Seltzer, who had charge of the construction of the Fraser River Bridge at New Westminster, B.C., for Waddell and Hedrick, Kansas City, Mo., the designers, has returned to the U.S.

H. N. Frith was presented with some jewellery by his colleagues, Mar. 1, on his retiring from the position of book-keeper for the British Columbia Electric Ry., at New Westminster, B.C.

W. Maekenzie, President, and D. B. Hanna, Third Vice President Canadian Northern Ry., have returned to Toronto after a trip to London, Eng., in the financial interests of the company.

It is announced that a marriage will shortly take place between B. J. Clergue, of the Lake Superior Corporation, Sault Ste. Marie, Ont., and Miss M. M. Roscoe, of Rickmansworth, Hertfordshire, Eng.

Foley Bros., who are carrying out large contracts on the C.P.R., have sent a donation of \$40,000 towards the building fund of the proposed new Roman Catholic Cathedral at St. Paul, Minn.

J. S. Reynolds, of the C.P.R. city passenger office, Quebec, was presented recently with a travelling case by Quebec friends, on leaving for Boston, Mass., where he will also be in the C.P.R. service.

W. M. Kirkpatrick was presented with a travelling case by the C.P.R. office staff, on leaving Vancouver, B.C., for Montreal, recently, to take charge of the company's export freight department.

Col. Burke, U.S. consul at St. Thomas, Ont., who died there Mar. 10, was at one time engaged as an operator on the Montreal Telegraph Co., at Montreal, and later with the Western Union Telegraph Co.

A. Bruce, who died at Stratford, Ont., recently, was roadmaster on the G.T.R. at Island Pond, Vt., from 1874 to 1879, and held a similar position on the line between Toronto and Sarnia, Ont., from 1879 to 1902.

A. Miscampbell, who died in Toronto Mar. 25, aged 57, was at one time Manager of the Northern Navigation Co., and subsequently of the Algoma Steamship Co. For some

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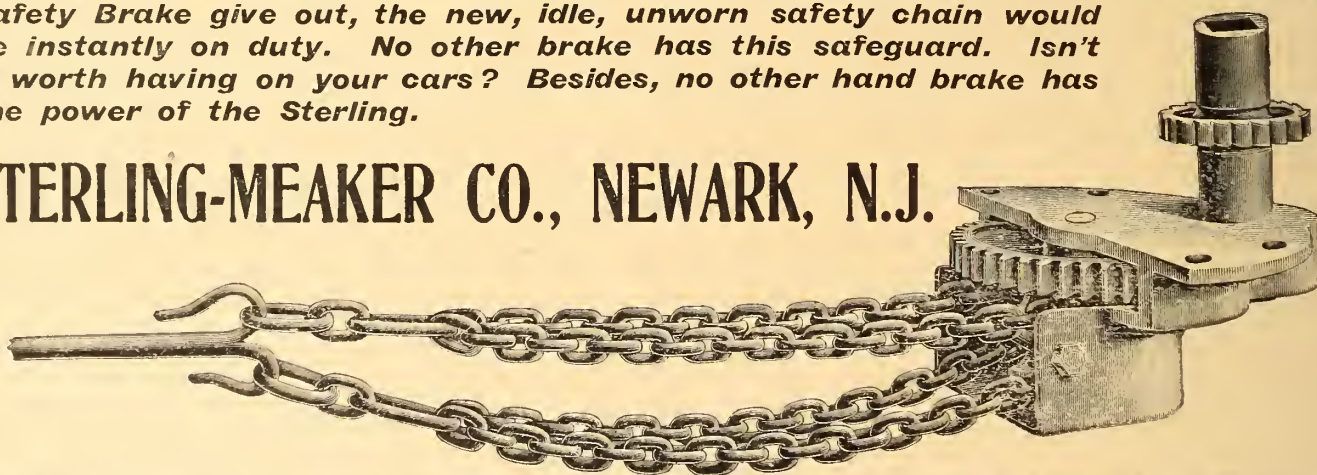
GENERAL SALES AGENTS

THE ALGOMA STEEL CO., Limited

A BROKEN BRAKE CHAIN

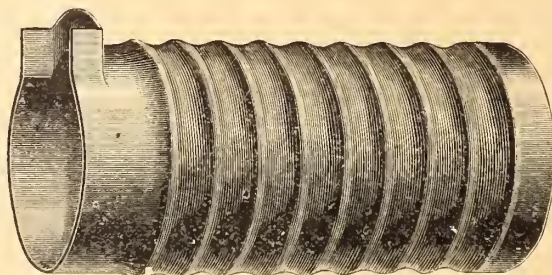
usually means lives lost, car smashed. Should the working chain on the Sterling Safety Brake give out, the new, idle, unworn safety chain would be instantly on duty. No other brake has this safeguard. Isn't it worth having on your cars? Besides, no other hand brake has the power of the Sterling.

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**MORISON Suspension Furnaces**

The universally satisfactory
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 proclaims it the best
 furnace made.

With Plain Ends or Flanged
 to any required shape.



**For Land and Marine
 — Boilers —**

Uniform Thickness, Easily
 Cleaned, Unexcelled for
 Strength, Unsurpassed
 for Steaming Capacity.

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WEST AND CALVER STS.,
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 Near 10th and 23rd Street Ferries.

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years he was a member of the Ontario Legislature.

The press reports recently current that E. J. Chamberlin, General Manager, and J. W. Smith, General Assistant, Canada Atlantic Ry., had resigned to engage in construction work on the G. T. Pacific Ry. are, we are informed, untrue.

P. S. Archibald, C.E., Moncton, N.B., has been appointed a referee by the Exchequer Court of Canada, to report on certain matters of difference between the Quebec Southern and South Shore railway companies, and the Bank of Hochelaga.

R. Watchorn, recently Inspector of Immigration, at Montreal, who has been appointed to a similar position at New York, was entertained recently at a dinner by the railway and steamship passenger and freight agents, in connection with his promotion.

W. Whyte, Second Vice-President C.P.R., and Mrs. Whyte, arrived in the City of Mexico, Feb. 28, on a holiday tour, accompanied by the Lieutenant-Governor of Manitoba, Sir Daniel McMillan and Lady McMillan. They are expected to return to Winnipeg early in April.

Hon. S. N. Parent, who was nominated by the Dominion Government as its representative on the directorate of the G. T. Pacific Ry. Co., did not accept the position, according to the statement of the Secretary of State in reply to a question in the Senate as to his resignation from the directorate.

Jas. A. Manning, C.P.R. operator at Deux Rivieres, Ont., was recently sentenced to 15 days' imprisonment at North Bay, for drinking intoxicating liquor while on duty, in contravention of the company's rules, and in violation of Sec. 296 of the Railway Act. The maximum penalty imposed by the act is a fine of \$400 and imprisonment for five years.

Charles Cameron, who died in Toronto, Mar. 23, aged 67, after an operation, from the effects of which he never rallied, was resident in Collingwood, Ont., for many years, and was a well-known lake mariner. He was connected with the old Great Northern Transit Co., which was subsequently merged in the Northern Navigation Co. of Ontario, of which he was elected a director, and in 1893 he was Vice-President.

Mrs. Wainwright, wife of W. Wainwright, Comptroller and General Assistant, G.T.R., Montreal, died on Mar. 16, at Saxonhurst, Weston-Super-Mare, Eng., the residence of her brother-in-law, Jas. Stephenson, formerly General Superintendent, G.T.R. Mrs. Wainwright left for England for a complete change early in Feb., but her illness took a serious turn, and Mr. and Miss Wainwright were sent for and left Montreal Feb. 24.

J. W. Higgins, who in Dec. last resigned his position as Assistant Superintendent of the G.T.R. at London, Ont., and was appointed Inspector of Transportation, Missouri Pacific Ry., was on Mar. 1 appointed Assistant General Manager of that system, in charge of transportation, with office at St. Louis. The general superintendents report to and receive instructions from him in matters relating to the transportation service. The Missouri Pacific lines are practically all west and south of St. Louis, and embrace 6,182 miles in operation.

G. E. Hall, who has been appointed Assistant Storekeeper C.P.R. at Montreal, was born at Napanee, Ont., Oct. 18, 1878, and entered transportation service in 1898, serving in that year and in 1899 as purser on one of the Richelieu and Ontario Navigation Co.'s

steamers between Montreal and Toronto. His record since has been: May, 1900, to Sept., 1901, clerk in the office of the Chief Engineer, C.P.R.; Sept., 1901, to Feb., 1902, clerk in office of Second Vice-President and General Manager, C.P.R.; April, 1902, to Feb., 1905, private secretary to Vice-President, C.P.R.

W. M. Kirkpatrick, who has been appointed acting Export Freight Agent C.P.R., Montreal, is a son of the late Sir George A. Kirkpatrick, formerly one of the C.P.R. directors. He was born at Kingston, Ont., Oct. 8, 1874, and entered railway service Mar. 7, 1892, in the office of the Vice-President of the C.P.R., since which time he has filled various positions in the Chief Engineer's office, foreign freight office, Montreal; General Freight Agent's office, Toronto; from July, 1899, to Dec., 1902, he was clerk in the office of the Fourth Vice-President, and from Dec., 1902, to the date of his present appointment Assistant General Freight Agent Pacific Division, at Vancouver.

Jno. Paul, who has been appointed General Freight Agent, Niagara, St. Catharines and Toronto Ry., was born in Euphrasia township, Grey county, Ont., Sept. 13, 1853,



J. F. CHAPMAN.

General Freight and Passenger Agent, Bay of Quinte Ry., Thousand Islands Ry., Oshawa Ry., and Deseronto Navigation Co.

entering railway service with the Northern Ry. at Meaford, Ont., his record since 1879 being: Aug., 1879, to May, 1881, agent Northern Ry., at Creemore, Ont.; May, 1881, to Oct., 1883, agent same company at Thornbury, Ont.; Oct., 1883, to Aug., 1885, in private business; Aug., 1885, to April, 1890, G.T.R., successively as relieving operator, ticket clerk at St. Catharines, Ont., and at London, Ont.; April, 1890, to Feb., 1905, city passenger and ticket agent, Michigan Central Rd., at London, Ont.; in Nov., 1894, the duties of city freight agent were added.

A. Buchanan, who has been appointed Superintendent of Motive Power and Car Department Central Vermont Ry., was born in New York City, April 3, 1870, and entered railway service in 1885, his record being: 1885 to 1891, machinist's apprentice, New York Central and Hudson River Rd.; 1891 to 1893, machine shop foreman same road, West Albany, N.Y.; 1893 to 1894, engine house foreman, same road, Dewitt, N.Y.; 1894 to 1897, erecting shop foreman, same road, West Albany, N.Y.; 1897 to 1900, general foreman locomotive department, same road, West Albany, N.Y.; Jan., 1900, to Dec., 1903, Master Mechanic, Delaware and Hud-

son Co., Green Island, N.Y.; Dec., 1903, to Feb., 1905, Superintendent Motive Power, Central Vermont Ry., St. Albans, Vt.

W. E. Fowler, whose portrait appears on the first page of this issue, has been engaged in railway car construction since 1880, his record being: Mar., 1880, to Sept., 1882, car builder in shops of St. Louis, Iron Mountain and Southern Rd., Baring Cross, Ark.; Oct., 1882, to Nov., 1883, car builder in shops of the Union Pacific Co., Denver, Colo.; Nov., 1883, to the end of 1889, car foreman, same company, at Denver; 1890 to 1891, general car foreman Denver, Texas and Fort Worth Rd., Denver, Colo.; 1891 to 1893, car foreman, Union Pacific Rd., at Denver, Colo.; 1894 to 1900, Master Car Builder, Union Pacific, D.G. and Colorado Southern Rd.; 1900 to April, 1902, General Car Inspector and Master Car Repairer, Southern Pacific Rd., at Sacramento, Cal.; 1902 to date, Master Car Builder, C.P.R. He was elected Second Vice-President of the Master Car Builders' Association in 1904.

Cecil B. Smith, the newly appointed chairman of the Temiskaming and Northern Ontario Ry. Commission, was born at Winona, Ont., Mar. 13, 1865, and is a Master of Engineering of McGill University, where he was awarded the Governor-General's medal. Since graduation his record has been:—1884 to 1886, Resident Engineer on construction Nipissing and Pacific Junction Ry., in the Parry Sound district; 1886 to 1887, transitman C.P.R., London to Windsor, Ont.; 1887 to 1888, Resident Engineer St. Catharines and Niagara Ry.; 1888 to 1889, Resident Engineer, C.P.R., London, Ont.; 1889 to 1890, Resident Engineer, Chief Draughtsman and Division Engineer on lines in Tennessee and South Carolina; 1890 to 1892, Chief Assistant Engineer, Roanoke and Southern Ry., Virginia; 1892 to 1893, Resident Engineer, Baltimore and Ohio Ry., in Pennsylvania; 1893 to 1898, Assistant Professor Civil Engineering, McGill University, Montreal; 1898 to 1899, locating engineer C.P.R., Sudbury to Toronto surveys; 1901 to 1905, Resident Engineer Canadian Niagara Power Co.; and from 1902 Consulting Engineer International Railway Co. He is a member of the Canadian Society of Civil Engineers, of which he has been three times elected a member of the Council; a member of the American Society of Civil Engineers, and is author of a work on railway engineering. As a consulting engineer he has advised on canal, harbor and other works. From 1889 to 1901 he was Assistant City Engineer, Toronto.

The C.P.R. added to its equipment during the current year to Mar. 21, one freight locomotive from the Canada Foundry, Toronto; nine switching locomotives, four first class cars, one baggage car, 12 snow ploughs, 11 flangers, 629 box cars, and 17 flat cars, from its Angus shops; and one wrecking crane from the U.S.

E. de la Hooke, G.T.R. city ticket agent, London, Ont., in a card soliciting business, says: "The telephone is a lively customer, but cash customers increase revenue. The latter are to the former what the proverbial leg of mutton is to the caper sauce—an improvement. As units, the joint is preferable, as being the more nutritious."

The C.P.R. during the current year to Mar. 21, placed the following orders for equipment: 30 freight and passenger locomotives, with the Locomotive and Machine Co. of Montreal; one wrecking crane in the U.S.; 40 vans at its Farnham, Que., shops; 10 freight and passenger locomotives, 3,000 box cars, 200 flat convertible cars, and one dynamometer car at its Angus shops.

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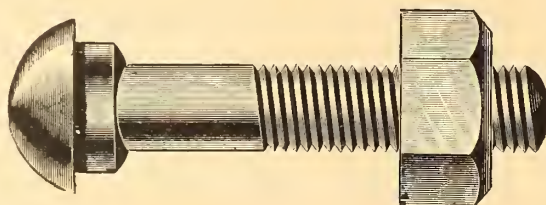
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PROVINCIAL GOVERNMENT LANDS can still be purchased at from \$3 to \$6 per acre.

IMPROVED FARMS in all districts of the province can be purchased at from \$10 to \$40 per acre. These prices are advancing every year.

A FEW POINTERS.

On arrival at Winnipeg the wisest policy for any new settler to adopt is to remain in Winnipeg for a few days and learn for himself all about the lands offered for sale and to homestead.

There are districts that have been settled for many years in which land can be purchased. Some of this may be unbroken prairie which still possesses all the richness and productive powers of our virgin prairies. Other lands, cultivated and having comfortable farm buildings, are ready for immediate possession.

There are Provincial Government lands, Dominion Government homesteads, and railway lands to be secured.

The price of land varies from \$3 to \$40 per acre. Location with respect to railways, towns, timber and water determines the price of land.

For information regarding homesteads, apply at the Dominion Land Office.

For purchase of Provincial lands apply at the Provincial Land Office in the Parliament Buildings.

For C.P.R. or C.N.R. lands apply at the land offices of said railway companies.

For lands owned by private individuals apply to the various real estate agents in the city.

For situations as farm laborers apply to :

J. J. GOLDEN,

PROVINCIAL INFORMATION BUREAU

617 MAIN ST., WINNIPEG

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LOCOMOTIVES

Mine, Furnace and Industrial Locomotives. Electric Locomotives with Westinghouse Motors and Electric Trucks.

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Send for guide of New York—Free

Eastern Canada Passenger Association.

The following lines were represented at a meeting of passenger lines in Toronto, Feb. 28:—Canada Atlantic, Canadian Pacific, Central Ontario, Grand Trunk, Intercolonial, Quebec Central, Toronto, Hamilton and Buffalo, and Wabash railways, Muskoka Lakes Navigation and Hotel Co., Niagara Navigation Co., Richelieu and Ontario Navigation Co., W. P. Hinton, G.F. & P.A., Canada Atlantic Ry., presided; J. D. McDonald, D.P.A. Grand Trunk Ry., acting as Secretary.

It was decided that the women's social officers, engaged in Salvation Army rescue work, be given the same reduced fares as nuns, sisters of charity and deaconesses, to become effective when the Commissioner of the Salvation Army advises that these officers have been provided with distinctive costume. The Chairman, and G. T. Bell and C. E. Ussher were appointed a committee to confer with the Commissioner regarding the matter. An application from the Commissioner for a rate of 1c. a mile for eight prison gate officers was referred to the same committee for enquiry, and to report at a subsequent meeting.

Convention plan arrangements were fully discussed and it was decided to personally notify the Commissioner of the Central Passenger Association that the formation of a passenger association for Canadian lines was contemplated. It was the sense of the meeting that for international conventions held in the U.S., the Canadian lines should co-operate with other associations on their agreed convention plan arrangements, and that for international conventions held in Canada, the terminal lines should be consulted by other associations before reduced rates are authorized from the U.S.

It was agreed that the action of this meeting be presented to a meeting to be held in Montreal Mar. 9, to form a Canadian passenger association. Pursuant to this decision all passenger transportation companies operating in Canada east of Port Arthur, Sault Ste. Marie, Port Huron and Detroit were invited to attend a meeting in Montreal to receive the report of the committee which was appointed Sept. 21, 1904, to prepare a report as to the advisability of forming a Canadian passenger association.

At the meeting in Montreal, Mar. 9, 38 representatives of 32 lines were present. T. Henry, Traffic Manager Richelieu and Ontario Navigation Co., was elected chairman, and E. C. Cleary, of the G.T.R. Passenger Department, Secretary. After a full discussion as to the advantages of the proposed association it was decided to establish one, and the articles of organization, as submitted by Messrs. Ussher, Bell and Hinton, were adopted after being amended in certain particulars, upon the understanding that final action thereon would be taken at the first regular meeting of the association to be held in Montreal April 4.

An executive committee, consisting of C. E. Ussher, G. T. Bell, and T. Henry were appointed to consider and report on April 4, on the following questions: appointment of a Chairman, his salary, etc.; whether proxies be allowed at regular and special meetings, and if so, how many; office, etc., for the Chairman.

F. Backus, J. M. Lyons, G. Collins, G. E. King and W. P. Hinton were appointed a committee to prepare rules and submit them on April 4.

The secretary was instructed to send a copy of the minutes to all Canadian transportation lines not represented, who were invited to the meeting, asking their concurrence in the action taken, and inviting them to attend the meeting on April 4, to complete the organization.

Meetings of the executive committee and of the committee on rules have since been held and their reports will be presented at a

meeting to be held in Montreal, April 4. It is reported that the original intention has been somewhat changed and that instead of a paid chairman being appointed this position will probably be an elective one and that the work of the Association will be performed by a paid Secretary.

Dominion Marine Association.

The second annual meeting was held at Ottawa, Ont., Mar. 23, with a good attendance of members, the President, C. F. Gildersleeve, of Kingston, Ont., occupying the chair.

The report of the executive committee dealing with its work during the past year was adopted, and a number of matters of considerable importance to the marine interests were fully discussed.

It was resolved that the Association is of the opinion that arrangements with the United States Government for reciprocal steamboat inspection with Canada would be to the interest of both countries, and that the Association respectfully requests the Department of Marine to take immediate steps with that object in view.

It was decided that the membership assessment for 1905 be at the rate of 2c. per ton on steam vessels and 1/2c. per ton on sailing and barge property, the executive committee being given power to consider special rates, such as that of a company owning a large number of vessels.

The following were elected as an executive committee:—C. F. Gildersleeve, President Lake Ontario and Bay of Quinte Steamboat Co.; H. C. Hammond, President Northern Navigation Co. of Ontario; J. H. Hall, Ottawa Transportation Co.; J. A. Cuttle, Managing Director Montreal Transportation Co.; H. W. Richardson, Kingston, Ont.; C. J. Smith, General Manager Richelieu and Ontario Navigation Co.; R. O. Mackay, Hamilton, Ont.; A. A. Wright, Victoria Harbor Lumber Co.; D. Murphy, Ottawa Forwarding Co.; S. Crangle, St. Lawrence and Chicago Navigation Co.; Capt. T. Donnelly, Donnelly Wrecking and Salvage Co.; F. Plummer, Canadian Lake and Ocean Navigation Co.

C. F. Gildersleeve declined to accept reelection as President, and a vote of thanks was enthusiastically passed for his untiring efforts in the interest of the Association. The executive committee elected J. A. Cuttle President; H. C. Hammond, 1st Vice-President, and A. A. Wright, 2nd Vice-President.

In the afternoon the members attending the meeting, accompanied by W. Harty, M.P., had interviews with the Minister of Marine and Fisheries, the Minister of Railways and Canals, the acting Minister of Public Works, and the Commissioner of Customs, and urged a number of matters in the interest of the Association.

At the Canadian Railway Club's meeting on Mar. 7, a paper was read by A. A. Maver, Master Mechanic G.T.R., Montreal, on "A System of Hot Feed Water for Stationary Boilers and Shop Heating."

The names of the following steamers of the Richelieu and Ontario Navigation Co.'s fleet have been changed:—Algerian to Cornwall, Bohemian to Prescott, Canada to St. Irene, Cultivateur to Varennes, Corsican to Picton, Saguenay to Chicoutimi, Virginia to Tadoussac, Spartan to Belleville. The change in the names of the steamers has been made in pursuance of a decision of the company to have all its vessels named after the principal cities, towns and rivers on their routes. The steamers which the company has had built in recent years, Kingston, Toronto, Montreal, have been named in this way.

Regulations Respecting Freight Tariffs.

J. Hardwell, Chief Traffic Officer, and A. D. Cartwright, Secretary of the Board of Railway Commissioners, have issued the following circular:—

Section 266 of the Railway Act of 1903 reads as follows:—"Where traffic is to pass over any continuous route in Canada operated by two or more companies, the several companies may agree upon a joint tariff for such continuous route, and the initial company shall file such joint tariff with the Board, and the other company, or companies, shall promptly notify the Board of its, or their, assent to and concurrence in such joint tariff. The names of the companies whose lines compose such continuous route shall be shown by such tariffs."

A circular issued by the Secretary of the Board on Sept. 16, 1904, prescribes the form of certificate of concurrence to be filed with the Board, separately for each and every joint tariff, by each carrier named as party thereto. In lieu of these individual certificates, the Board is prepared to receive from each company one general notice of concurrence in all joint tariffs to which it has been, or may be, made a party, excepting those which it may repudiate by filing a special notice of non-concurrence with the Commission. The form of certificate of general concurrence is prescribed as follows:—

TO THE BOARD OF RAILWAY COMMISSIONERS FOR CANADA, OTTAWA, ONT.

This is to certify that the Railway Co. assents to and concurs in all joint tariffs, also all supplements or amendments to joint tariffs, or other issues which in any way affect joint rates, which have been, or may hereafter be, issued by other carriers, associations or committees, and in which the said Railway Co. is named as a party thereto, unless the said Railway Co. shall give the Commission notice to the contrary.

The certificate is to be signed in person by the official designated in section 251 of the Act and mailed to the Chief Traffic Officer, Railway Commission for Canada, Ottawa. Should a receipt be required, a carbon copy, marked "duplicate," may be enclosed with the filed certificate, to be receipted and returned. This general form of concurrence will be accepted from parties to international joint tariffs, but it is to be understood that no carrier participating in a joint international tariff is hereby relieved of the obligation of seeing that the tariff is duly filed by the initial company. This arrangement will continue in force until further notice from the Board.

TARIFF CHANGES.—It is ordered that the occasion for the issue be shown in future at the top of the front page (in centre, or near the C. R. C. no.) of all tariffs, supplements, amendments, etc., thus: "Advance," "Reduction," "Re-Issue," or "New Rate (or Rates)" as the case may be.

Esquimaux and Nanaimo Ry.—A Victoria, B.C., despatch dated Mar. 27, refers to Jas. Dunsmuir, the President, as stating that the proposed purchase by the C.P.R. is off. The sale was made subject to necessary legislation being obtained, and a difficulty is said to have arisen in connection with the passage of a clause providing for the retention of the land grant by the Dunsmuir estate with all the rights and privileges attaching to it under the original grant. The principal advantage sought to be obtained was exemption of the land from taxation.

The Board of Railway Commissioners recently completed a series of sittings at various points in Ontario. Among the places visited were Toronto; Guelph, where the question of the acquisition of some park lands by the G.T.R. for station extension was considered; Windsor, where the question of the bridging of the Detroit River was looked into; and Niagara Falls, where a number of matters were considered.

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PRINCE EDWARD ISLAND AND NEWFOUNDLAND

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VIA



RUNNING DAILY BETWEEN

MONTREAL, QUEBEC, ST. JOHN,
HALIFAX and the SYDNEYS

Give every satisfaction to shippers

"MARION" STEAM SHOVELS

ANY SIZE OR CAPACITY DESIRED

CARS

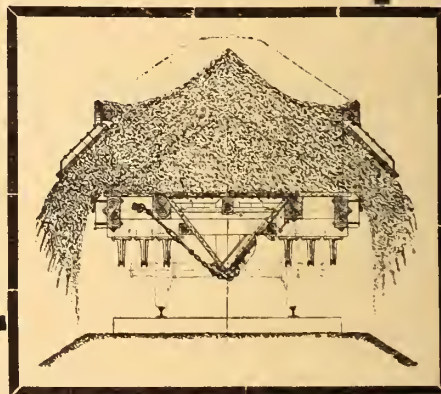
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Steel Rails, Scrapers, Barrows, Track
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SWITCHES AND TRACK WORK

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STEEL CASTINGS

For wearing Parts, Insuring Great Hardness and Durability

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WORKS AND OFFICE: CANAL BANK, PT. ST. CHARLES, MONTREAL

ELECTRIC RAILWAYS.

Projects, Construction and Betterments.

British Columbia Electric Ry.—In connection with the leasing of the Vancouver and Lulu Island Ry. to the B. C. E. Ry., from July 1, we are informed that the work of electrifying the line will be done by the lessees. The work is now in progress and it is expected that cars will be running over it about July 1. The plans for the work include a power station of steel and concrete, the main building being 50 ft. square. About 150 miles of wire will be used in the transmission circuits and the feed wire. It is also proposed to use an electric locomotive in connection with the freight traffic on the line. The agreement calls for an hourly service between April 1 and Oct. 31, and a two hourly service during the winter months, with at least three freight trains a day.

The extension to Kitsilanto Beach embraces a part of the C.P.R. line, and consists of a spur line from Granville St., Vancouver, to Kitsilanto Beach. The electric equipment has been provided, and a car service will be operated as soon as the approval of the Railway Commission has been given to certain wire crossings. (Mar., pg. 109.)

Canada-Middlesex Ry.—G. C. Thompson, W. Meredith, W. M. Smith, Jos. Montgomery, Jas. Haywood, Toronto, are applying at the current session of the Dominion Parliament, for an act incorporating a company with this title to construct a railway from the Niagara River, north of the Welland River, to London, Ont. The capital is fixed at \$500,000 and bonds to the extent of \$35,000 a mile may be issued. Steam may be used as a motive power during the construction of the line, but shall not be used as motive power for its operation. Power is being asked to make agreements with all steam and electric railways between the two points named. (Jan., pg. 11.)

Edmonton Street Ry.—Contracts are reported let for the construction of an electric railway in Edmonton, Alta., about five miles long. The cost of the rails and ballast is placed at \$15,000 a mile, the bonding and overhead work at \$2,000 a mile, and the equipment of the power house at \$16,000. It is expected to have the line completed by Sept. 1. J. M. Campbell, Kingston, Ont., has been appointed Chief Engineer.

Hamilton.—A proposal has been made for the establishment of a union station for the use of the different radial railways entering the city. The Hamilton, Grimsby and Beamsville Electric Ry. recently purchased a lot on Main St. East, opposite its present station, and reports state that this purchase has something to do with the proposal.

Hamilton, Ancaster and Brantford Ry.—Application will be made at the current session of the Ontario Legislature for power to increase the capital stock, and to increase the bond issue to \$25,000 a mile. The Hamilton City Council has passed a by-law granting a right of way along James and Main streets. It is announced that a formal start was made with the grading at Ancaster Mar. 16, in order to comply with the terms of the act. A suggestion has been made for the construction of a union station in Hamilton for the radial railways. (Mar., pg. 111.)

Hamilton Radial Ry.—Work has been started getting in the cribwork for the abutments of the bridge over the river at Oakville, Ont. The steel work for the bridges at Bronte and Oakville is ready for delivery, and the rails and other material for the line are in course of delivery. It is expected that grading and tracklaying will be completed so as to permit the running of cars early in the summer.

London to Galt.—Application will be made

at the current session of the Ontario Legislature for the passing of an act incorporating a company for the purpose of constructing a railway from London through the counties of Middlesex, Oxford, Perth, Waterloo and Wellington, to Guelph, Ont. A. T. Drummond, Toronto, is solicitor for the applicants.

Niagara, St. Catharines and Toronto Ry.—We are advised that the recent press reports that all arrangements had been completed for the extension of the line to Hamilton, Ont., are not correct, as nothing definite has yet been decided.

F. Nicholls, President, met the St. Catharines City Council Mar. 16, and stated that if the company's application for an extension of time for the construction of the line to Hamilton and Toronto was granted, a survey of the route would be immediately started. If the application was refused, the interests controlling the company would fall back on the authority giving the Toronto and Niagara Power Co. to construct an electric railway on its right of way, which had been intentionally made sufficiently wide to provide for a double track. In the projected electric railway between Toronto and Buffalo it was proposed to make St. Catharines the only large point outside Toronto. It was intended to carry the main line across Hamilton Beach, and to run a spur line from Stoney Creek into Hamilton. "We will," added Mr. Nicholls, "make any railway extensions in the Niagara peninsula which will pay us, because we are here for a dual purpose. We will build railways which will develop the Niagara district, and thus create a market for the power we are generating at Niagara Falls. We have nearly all our towers up, and are just about ready to distribute power." (Mar., pg. 111.)

Southwestern Traction Co.—An agreement has been reached with the St. Thomas City Council for the use of the city's electric railway. The company has practically completed its railway from London to St. Thomas, and will extend it to Port Stanley, Ont. Its tracks will connect with the city lines, and it has secured a right to run over the city lines to the point of departure for Port Stanley, for fifty years, at a rental starting at \$1,200 a year, and increasing every five years to \$1,750 a year at the end of the 25th year, when the matter of price is to be again considered. It will not collect any fares in the city, but will pay the cost of power and half the cost of the maintenance of the tracks used. The company is now installing the machinery in its power house situated at the southern limits of the city of London. Preparations are being made for the continuation of construction work as soon as the weather is sufficiently open. The extension of the line to be gone on with is between St. Thomas and Port Stanley, and it is expected that the construction company will sublet contracts for portions of the grading. (Mar., pg. 111.)

Toronto Railway.—An arrangement has been completed for the extension of the lines in the Rosedale district, for the purpose of completing a belt line there.

Toronto and Hamilton Ry.—Tenders will be received to May 1 for the grading, culverts, masonry, bridges and other works required on this projected line between Toronto and Niagara Falls, Ont. The route to be followed is substantially the same as that of the pole line of the Toronto and Niagara Power Co. F. Nicholls, Toronto, is President, and W. T. Jennings Chief Engineer, of the company. (Mar., pg. 111.)

The Canadian Freight Association met at Montreal, Mar. 7, when it was decided to maintain the same rates for lake and rail business as were in force for the season of 1904, with one or two minor exceptions.

Canadian Street Railway Association.

The first quarterly meeting of the Canadian St. Ry. Association was held in Ottawa, Mar. 7, the following being present: Dr. S. Ritter Ickes, President; A. J. Pattison, Vice-President; W. R. Turnbull, Director Grand Valley Electric Ry.; C. E. A. Carr, General Manager London St. Ry.; W. G. Ross, Managing Director; L. Macdonald, Manager; P. Dubee, Secretary Montreal St. Ry.; T. Ahearn, Vice-President; W. Y. Soper, Director; J. D. Fraser, Secretary-Treasurer; J. E. Hutcheson, Superintendent; J. Murphy, Electrician Ottawa Electric St. Ry.; E. G. Evans, General Manager Quebec Ry., Light and Power Co.; Col. H. H. McLean, K.C., Director St. John Ry.; W. H. Moore, Assistant to the President Toronto Ry., and Manager Toronto & York Radial Ry.; J. D. McArthur, Superintendent Toronto & York Radial Ry.; A. H. Royce, Vice-President Toronto Suburban Ry. C. Archer, Solicitor Montreal St. Ry.; and Acton Burrows, Publisher of the RAILWAY & SHIPPING WORLD, were also present by invitation. The President, W. G. Ross, occupied the chair.

Papers were read by C. E. A. Carr, on the transportation of mails and postmen; by W. H. Moore, on his recent inspection of electric railways in the U.S.; by W. G. Ross, on mutual benefit associations, and by Dr. S. Ritter Ickes, on Sunday legislation in Ontario as affecting electric railways. Papers were to have been read by W. C. Hawkins, General Manager of the Hamilton Cataract Power, Light and Traction Co., and by E. F. Seixas, General Manager of the Niagara, St. Catharines & Toronto Ry., but they were unable to be present.

W. H. Moore stated that with other officials of the Toronto Ry., he intended inspecting electric railways in districts they had not already visited, and that he would be glad to have any other members of the association accompany them.

The executive committee was authorized to appoint sub-committees to consider the questions of the transportation of mails and postmen, freight rates, and the best form of fender for suburban lines. Dr. Ickes, Col. McLean and A. H. Royce were appointed a committee to consider the Sunday observance legislation as affecting Ontario lines.

After the meeting a number of those present were taken by special car on the Ottawa Electric St. Ry. to inspect the company's power house, car barns, etc., and also the Ottawa Car Co.'s works.

The executive committee subsequently appointed the following sub-committees:—Transportation of Mails and Postmen, T. Ahearn, C. E. A. Carr, E. G. Evans, Col. H. H. McLean; Freight Rates, E. G. Evans, W. H. Moore, E. F. Seixas; Fenders, W. C. Hawkins, J. E. Hutcheson, S. Ritter Ickes.

The paper on Mutual Benefit Associations, read at the meeting at Ottawa, will be found on the first page of this issue.

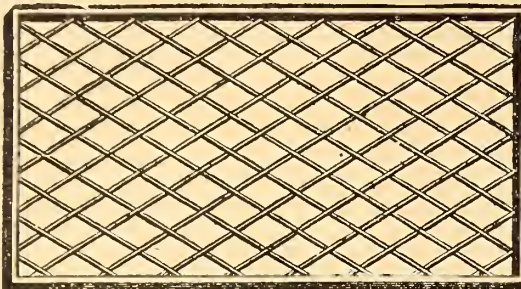
Halifax Electric Tramway Co.

The report presented at the recent annual meeting showed gross earnings for 1904, of \$379,161.81, an increase of \$14,009.85 over 1903. The operating expenses were \$211,941.57, a reduction of \$28,871.10. This result was obtained by the economies attending the use of the new machinery and modern appliances installed in 1903, and the lessened consumption of fuel. A further expenditure of \$31,209.17 was made on capital account on the completion of the new power house and plant, etc.

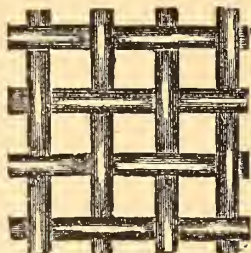
ASSETS	
Property	\$2,119,659 10
Accounts receivable	31,407 77
Supplies	19,703 95
Suspense accounts	10,597 44
Deposit with city	500 00
Cash on hand	33,870 20
	<u>\$2,215,738 46</u>

LIABILITIES	
Capital stock	\$1,350,000 00
5% Bonds	600,000 00
Accounts payable	40,502 60
Notes payable	30,000 00
Bond interest	15,000 00
Dividend due Jan. 2nd, 1905	16,875 00
Tickets outstanding	1,345 13
Surplus account	162,015 73
	<u>\$2,215,738 46</u>

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FOR ELECTRIC CAR



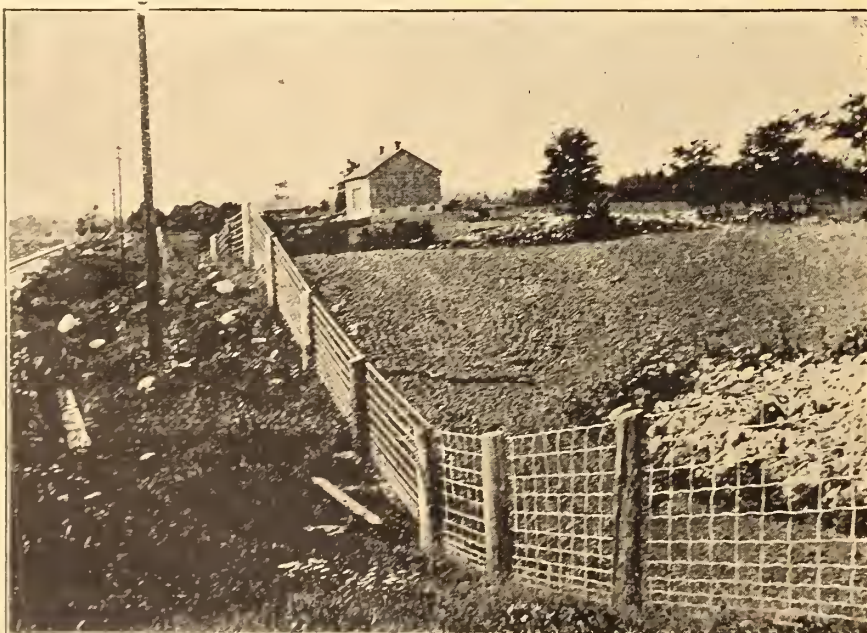
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CANADA

Following are particulars relating to the railway part of the company's business:

	1904	1903
Earnings	\$158,187.23	\$150,865.60
Passengers carried	3,540,310	3,369,280
Car mileage	711,578	715,470

The officers and directors for the current year are: President, Hon. D. McKeen; Vice-Presidents, Jno. Y. Payzant, W. B. Ross; other directors, A. Kingman, J. Hutchison, J. C. Mackintosh, H. S. Poole, W. M. Doull; Manager, J. W. Crosby; Secretary, W. J. DeBlois.

"America's Greatest Railroad."

New York Central

& HUDSON RIVER R. R.

THE SIX-TRACK TRUNK LINE.

In connection with the

Canadian Pacific Ry.,
Toronto, Hamilton & Buffalo Ry.,
and Michigan Central R.R.

If you are going to or from New York,
you arrive at or depart from the

NEW GRAND CENTRAL STATION

of the

NEW YORK CENTRAL

which is not only in the

GEOGRAPHICAL CENTER

of New York, but is also in the center
of the Hotel, Residence, Club,
and Theater district.

A fact to remember is that the NEW
YORK CENTRAL is the only
trunk line whose trains enter
the city of New York.

L. DRAGO,

Canadian Passenger Agent, 69½ Yonge Street,
TORONTO, ONT.

Special Announcement Hotel and Railroad Employees

An invitation is extended to any Hotel Proprietor, manager or clerk outside of New York, or Railroad official whose name appears in the Pocket List of Officials, or any member of the International Association of Coupon Railway Ticket Agents, to accept the hospitality of our hotel for three days WITHOUT CHARGE. This offer is made in order to establish a headquarters for Railroad officials and Hotel men.

USUAL RATES—Room and bath \$3 per day and up without meals. Room and bath \$30 per week and up with meals for two.

VAN RENSSELAER HOTEL

17 East 11th St., - N.Y.C.

J. C. LAWRENCE - - - Proprietor

Steamboat For Sale

The steel steamer "City of Owen Sound," now lying at Toronto, is for sale. All in good order and furnished throughout. Suitable for regular passenger traffic. For particulars apply to

THE TRUSTS & GUARANTEE COMPANY, Limited

14 King Street W., - TORONTO
TRUSTEES

ELECTRIC RAILWAY STATISTICS FOR YEAR ENDED JUNE 30, 1904.

The following abbreviations are used in the names of railways:—E., electric; E. R., electric railway; E. S. R., electric street railway; Ry., railway; S. R., street railway. The minus mark (–) in the column for net earnings shows that there was a deficit in the operations of the line to the extent of the figures given. The numbers in brackets—thus (1)—after the name of a railway refer to notes below.

Name of Railway	Mil'ge	Gross Earnings	Net Earnings	Proportion of earnings to working expenses	Earnings per train mile	Operating per train mile	Freight Mileage	Car Mileage	Passengers Carried	Freight Carried
				p. c.	cts.	cts.				Tons
Berlin and Waterloo S. R. (1).....	5.52	\$ 23,467.76	\$ - 1,048.78	96	25	26		94,180	536,000	
Brantford S. R.	7.00	18,158.63	- 3,441.96	84	22	26		80,400	228,810	
British Columbia E. R. (2).....	48.00	454,508.42	159,824.11	154	23	15	43,732	1,911,312	8,869,486	6,066
Cape Breton E. Co.	11.80	73,012.05	6,034.96	109	25	22		294,354	1,266,862	
Cornwall E. R.	6.00	19,958.14	476.17	102	11	10	12,109	184,342	278,761	
Galt, Preston and Hespeler S. R.	16.00	41,017.14	2,273.89	105	28	26	12,350	147,660	382,901	30,831
Grand Valley Ry. (3).....	6.00	25,084.85	5,405.76	127	36	28		68,664	203,134	15
Guelph Radial Ry. (4).....	5.50	19,889.41	1,800.00	109	09	08	1,400	211,400	488,932	8,000
Halifax E. Tramway.....	12.13	150,865.60	39,931.97	136	21	15		715,470	3,369,280	
Hamilton and Dundas S. R. (5).....	7.25	36,722.38	19,202.23	209	49	23		74,483	337,273	1,310
Hamilton, Grimsby and Beamsville E. R.	27.50	65,766.36	31,271.41	190	28	15	18,970	234,632	355,622	6,644
Hamilton Radial E. R. (6).....	12.00	67,292.04	32,969.19	196	33	17		203,473	715,235	2,600
Hamilton S. R. (7).....	22.00	220,100.35	80,811.22	158	17	11		1,261,984	5,265,748	
Hull E. Co. (8).....	14.50	84,873.32	14,365.89	120	17	14		489,942	869,201	27,753
International Transit Co.	3.30	48,439.60	2,630.95	105	29	28		163,648	556,206	883
Kingston, Portsmouth and Cataraq. E. R.	7.50	32,766.62	7,569.98	130	41	31		80,011	641,121	
Levis County Ry.	10.25	35,094.04	11,993.04	152	16	10		219,388	978,992	
London S. R. (9).....	31.00	165,006.20	46,926.83	139	14	10		1,198,642	4,104,719	
Metropolitan (Toronto) Ry. (10).....	29.00	79,396.63	24,415.35	144				250,000	521,083	
Montreal Park and Island Ry. (11).....	37.99	160,486.02	- 9,081.14	94	23	25	10,920	686,423	1,745,598	13,340
Montreal S. R. (12).....	123.67	2,412,763.32	939,561.83	163	20	12		12,080,791	59,595,886	
Montreal Terminal Ry. (13).....	18.34	83,686.64	18,968.59	129	15	11		564,080	935,419	49,167
Nelson Tramway Co.	3.00	4,712.85	- 10,365.86	31	14	43		34,330	88,933	
Niagara Falls Park and River Ry. (14).....	13.68	124,201.58	70,583.96	231	39	17	18,580	319,838	1,100,008	77,900
Niagara, St. Catharines and Toronto Ry.	19.94	123,433.46	37,335.28	143	28	16	297,673	514,455	733,045	109,565
Niagara Falls, Wesley Park & Clif. Ry. (15).....	4.50	26,959.60	15,911.12	244	18	08		141,835	512,062	
Oshawa Ry.	8.02	40,183.02	3,686.45	110	72	65	19,356	55,772	134,228	66,087
Ottawa E. R. (16).....	22.87	362,411.75	143,415.16	165	15	09		2,353,729	7,649,850	
Port Arthur S. R.	9.00	36,723.85	9,165.33	133	23	17		157,223	646,295	
Pt. Dal., St. Cath. and Thorold E. S. R.	6.82	17,706.10	7,284.41	169	17	09		104,829	359,593	
Quebec Ry. Light and Power Co. (17):										
Citadel Division.....	17.22	190,217.50	54,029.45	139	17	12		1,138,546	4,157,761	
Montmorency Division.....	25.00	86,498.31	37,716.64	170	51	30		170,849	721,330	
Sandwich, Windsor and Amherstburg Ry.	23.15	117,672.00	48,945.81	171	22	13		541,779	1,984,663	
Sarnia S. R. (18).....	7.00	27,000.00	11,225.00	171	07	04		370,353	800,000	
Sherbrooke S. R. (19).....	13.00	106,880.88	37,831.79	154	20	13		520,173	1,396,389	
St. John Ry.	4.50	29,449.67	6,648.65	129	35	27		82,632	510,502	
Sydney and Glace Bay.....	18.80	92,173.02	27,073.62	141	28	20		331,900	2,008,180	
Toronto Suburban Ry.	8.50	21,080.99	1,172.54	105	13	12		163,748	478,590	
Toronto and Mimico Ry. (18).....	5.87	28,916.96	8,864.87	144	16	11		175,580	543,889	
Toronto Ry. (20).....	46.75	2,310,620.14	1,008,393.20	177	19	11		11,808,389	56,675,490	
Toronto and Scarboro (18).....	5.07	19,619.76	5,014.38	134	11	08		179,702	478,868	
Winnipeg S. R. (21).....	28.00	338,503.82	162,000.76	192	22	12		1,513,458	7,763,562	
Woodstock, Thames Val. and Inger. E. R.	11.50	19,648.29	9,659.40	196	21	11		91,805	224,424	
Yarmouth S. R.	2.06	10,640.11	638.78	106	13	12		79,920	176,067	
	766.50	\$8,453,609.18	\$3,127,092.23					42,066,124	181,689,998	400,161

Notes to Electric Railway Statistics.

(1) The Berlin and Waterloo mileage includes the Berlin and Bridgeport E.S.R., 2.5 miles, which is operated under lease. It obtains its power from the Berlin Light Commissioners.

(2) The B.C. Electric Ry. has 7.50 miles of double track.

(3) The Grand Valley Ry. obtains its power from the Brantford St. Ry.

(4) The Guelph Radial has 1.58 miles of double track.

(5) The Hamilton and Dundas Ry. obtains its power from the Cataract Power, Light and Traction Co.

(6) The Hamilton Radial has 10.50 miles of double track.

(7) The Hamilton St. Ry. has 10 miles of double track. It obtains its power from the Cataract Power, Light and Traction Co.

(8) The locomotive mileage over the Hull Electric Co.'s line was 14,628 miles.

(9) The London St. Ry. has 11.68 miles of double track.

(10) The figures given are for the year ended June 30, 1903.

(11) The Montreal Park and Island Ry. has 12.75 miles of double track.

(12) The Montreal Street Ry. has 49.21 miles of double track.

(13) The locomotive mileage over the Montreal Terminal Ry. was 20,576 miles.

(14) The Niagara Falls Park and River Ry. has 11.43 miles of double track.

(15) Power supplied by the Niagara, St. Catharines and Toronto Ry.

(16) The Ottawa E.R. has 17.95 miles of double track.

(19) There are 5 miles of double track on the Citadel division and 6 miles of double

track on the Montmorency division of the lines of the Quebec Ry., Light and Power Co.

(18) The Sarnia St. Ry., the Toronto and Mimico Ry., and the Toronto and Scarboro Ry. lease their power.

(19) The returns from the Sherbrooke St. Ry. are incomplete.

(20) The Toronto Ry. has 41.77 miles of double track.

(21) The Winnipeg St. Ry. has 5 miles of double track.

Electric Railway Notes.

The London Street Ry. has voluntarily raised the wages of its motormen and conductors from a maximum of 16½ to 17 cents an hour.

The Port Arthur Street Ry. has started running its cars in the town of Fort William, Ont., on Sundays, despite the protest of the mayor of the latter town.

The Winnipeg Electric Street Ry. has ordered three large forged steel patent water tube boilers, aggregating 2,000 h.p., from Babcock & Wilcox, Ltd., Montreal. The company installed two boilers of the same type about two years ago.

The Southwestern Traction Co. will be in the market shortly for 60 lb. steel rails, and angle plates for same; copper wire; standard ties; 30 ft. poles, six inch and eight inch tops; spikes, bolts, etc., for 15 miles of track. Material for two or three bridges will also be required, and the company is also looking for a heavier locomotive in exchange for the 10 ton one now in work upon construction work.

In the case against the Grand Valley Ry., for operating its cars on Sundays, the question will be raised whether the Dominion Parliament had power to enact Sec. 2, Chap. 32, 1904, which provides that all railways, whether steam or electric, situated entirely

within one province, but, either entirely or in part declared to be for the general advantage of Canada, shall be under the jurisdiction of the provincial acts relative to Sunday labor.

Electric Ry. Finance, Meetings, Etc.

British Columbia Electric Ry.—Railway earnings for Jan.:—Vancouver, \$18,507; Victoria, \$10,449; Westminster, \$9,657; total, \$38,613, against \$34,095 for Feb., 1904; total railway and lighting earnings \$80,028, against \$73,902. Working expenses, \$40,088; renewal funds, \$6,695; net income, \$33,245, against \$40,599 working expenses, \$5,988 renewal funds, and \$27,315 net income for Jan., 1904. Net earnings for seven months ended Jan. 31, \$205,667, against \$183,404.

The Cape Breton Electric Co. owns the electric lighting plant, ferry service and electric railway in Sydney, and the electric rail-

way connecting Sydney and North Sydney. It also owns one-half of the bonds and common stock of the Sydney and Glace Bay Ry. Gross earnings for year ended Dec. 31, 1904, \$202,018.84; operating expenses, \$155,668.38; net earnings, \$46,350.46; fixed charges, \$43,470.27; net profit, \$2,880.19.

Halifax Electric Tramway Co.—Railway earnings for Feb., \$7,188.71, against \$9,894.47 for Feb., 1904.

Hamilton Cataract, Power, Light and Traction Co.—The annual meeting held Mar. 6 was a formal one, the only business transacted being the presentation of the annual report and the election of directors. The officers and directors for the current year are: President, J. M. Gibson, K.C.; Vice-President, Jas. Dixon; Treasurer, J. R. Moodie; Secretary, W. C. Hawkins; other directors: Jno. Dickenson, J. A. Kammerer, J. W. Sutherland. The gross earnings of the traction department for 1904 were \$335,560.13.

The Hudson's Bay Company



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ON EASY TERMS OF PAYMENT

Town Lots for sale at Winnipeg, Ft. William, Edmonton, Prince Albert, etc.

The Company has General Stores at Winnipeg, Vancouver, Calgary, Edmonton, and other places where purchasers will find the best of goods at moderate prices.

Transportation by the Company's Steamers, brigades of boats and canoes throughout the Territories not traversed by railways.

Full information at the Company's Offices, Winnipeg, or 1 Lime St., London, E.C.

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CAR SHOPS

MACHINE SHOPS

320, 322 and 324 ST. JAMES ST., = MONTREAL

JAMES PLAYFAIR, Pres. & Gen'l Mgr.

D. L. WHITE, Vice-President.

J. W. BENSON, Sec'y-Treas.

MIDLAND TOWING & WRECKING CO., LTD., MIDLAND, ONT., CANADA.

First-Class Tugs for Wrecking, Raft Towing, etc. Steam Pumps, Divers, Jacks, Hawseers and Lighters.

Hamilton, Grimsby and Beamsville Electric Ry.—The annual meeting adjourned to Feb. 22, from Jan. 23, was further adjourned until Mar. 23, when it was announced that the majority stock purchased in 1904 by the G.T.R. had been acquired by the Hamilton Cataract, Power, Light and Traction Co. The new officers and directors are: President, J. W. Nesbitt, K.C.; Vice-President, J. Dickenson; Treasurer, Jno. Moodie; other directors: J. M. Gibson, W. C. Hawkins, J. W. Sutherland, J. G. Gauld; Secretary, G. Waller; Auditor, W. E. Boyd.

International Ry. Co.—Owing to a change in the controlling interests of the International Traction Co., which is the holding company of the International Ry., and other electric railways in the Niagara peninsula, on the Canadian as well as the U.S. side of the Niagara River, new directors and officers have been elected. The new board and officers of the I. Ry. Co. are as follows: President, H. J. Pierce, Buffalo, N.Y.; Vice-President, D. S. Lamont; other directors: E. B. Osler, T. G. Blackstock, Toronto; G. L. Boissevain, P. White, A. Robinson, T. E. Mitten, T. D. Culyer, C. Steele, R. L. Freyer, H. M. Watson, D. O'Dey, E. T. Stotesbury, A. M. Robinson. Secretary-Treasurer, J. F. Slocum.

The Kingston, Portsmouth and Cataraqui Electric Ry. has been closed down, the bondholders having taken possession, and being unable to obtain power from the Kingston, Ont., City Council at a rate which the council says is less than cost. The indebtedness is said to be about \$150,000, and it is stated that the bondholders have not received any interest for some years.

Levis County Ry.—The financial difficulties in which this company are involved culminated Mar. 11 in the failure to carry out the arrangement with the company supplying power. The power supply was cut off and the service is suspended pending an adjustment of the financial position. We are advised that there is no truth in the press reports that the line was to be taken over by the Messrs. King.

Montreal Street Ry.—Gross earnings for Feb., \$185,864; net earnings, \$37,968.38; fixed charges, \$20,477.54; surplus, \$17,490.84, against \$168,685.29 gross; \$37,264.70 net; \$16,940.05 fixed charges; \$20,324.65 surplus for Feb., 1904. Gross earnings for five months ended Feb. 28, \$1,027,214.06; net earnings, \$325,335.59; surplus, \$229,530.28; against \$937,821.56 gross; \$319,563.75 net, and \$233,775.30 surplus for same period 1903-04.

Niagara, St. Catharines and Toronto Ry.—Gross earnings for year ended Dec. 31, 1904, \$223,924; net earnings, \$141,497; interest charges, \$49,462; surplus, \$32,965; against \$214,823 gross, \$139,556 net, \$43,867 interest charges, and \$31,400 surplus for 1903.

Sandwich, Windsor and Amherstburg Ry.—Following are the officers and directors for the current year: President, H. A. Everett; Vice-President and Treasurer, J. C. Hutchins; Assistant Auditor, Jos. Bampton; other directors: E. W. Moore, R. B. Van Courtlandt, C. B. King, A. Pack, M. Brennan; Secretary, A. E. Peters; Auditor, I. Fullerton; Manager, Jas. Anderson.

Toronto Ry.—Car earnings for Feb., \$185,377.08, against \$169,904.33 for Feb., 1904.

The Toronto City Council has given notice that it will apply at the current session of the Ontario Legislature for an act authorizing it to take over and expropriate the property, rights and franchises of the Toronto Ry. Co., upon the terms and conditions in which the agreement with the company provides for the city's taking over the undertaking. It is asked that the expropriation shall not be made until it has been approved of by the ratepayers.

Grain Elevator Notes.

The Point Edward Elevator Co., Point Edward, Ont., has renewed a chattel mortgage for \$100,000 to the London and Western Trusts Co.

The Canadian Malting Co. of Toronto has purchased two acres of land at Winnipeg, upon which it proposes to erect an elevator of 150,000 bush. capacity, and malting houses.

In regard to the proposed Government elevator at Port Colborne, Ont., the Minister of Railways and Canals stated in the House of Commons recently that it would be constructed of concrete and iron, and would be of the most modern design. The total cost would be \$1,100,000, and a vote of \$310,000 on account was passed. Replying to questions as to the general policy of the Government upon elevators at this point the Minister stated that the construction of the elevator was the natural sequence of the construction of the breakwater and the other improvements at Port Colborne. The Government deemed it in the interests of the Dominion, in order to prevent one or two transportation companies getting control of the waterway. Only a limited number of elevators could be provided there, and if one or two private companies constructed elevators there they would obtain exclusive control. Several applications had been made for sites from private corporations, and it was deemed to be imperative in the public interest that the Government should construct a large elevator there, which would be open to the general public upon conditions laid down by regulations. By this means all interested in the transportation question would have an opportunity of availing themselves of the elevator facilities.

SHIPPING MATTERS.

River and Lake Officers for 1905

The following appointments have been made by the principal navigation companies interested in the St. Lawrence River and Great Lakes trade, for their various vessels for the season of 1905. In the first column is given the name of the vessel, in the second that of the captain, and in the third that of the chief engineer:—

CALVIN CO., GARDEN ISLAND, ONT.

Burma (schooner)	J. Ferguson	
Ceylon (schooner)	J. Achee	
D. D. Calvin	H. N. Smith	Jno. Kennedy
India	Chs. Coons	T. C. Smith
Simla	A. H. Malone	R. H. Veech

CANADA ATLANTIC TRANSIT CO., OTTAWA, ONT.

Arthur Orr	H. Jaenke
George N. Orr	W. Baxter
Ottawa	Alex. Birnie

CANADIAN LAKE AND OCEAN NAVIGATION CO., TORONTO

A. E. Ames	E. L. Stephen	S. Gillespie
H. M. Pellatt	G. A. Brian	W. Byers
J. H. Plummer	G. W. Mackey	R. Chalmers
Turret Cape	A. McIntyre	W. H. Durham
Turret Chief	M. McPhee	R. Dugia
Turret Court	Jas Black	C. J. McSorley

CANADIAN NORTHWEST STEAMSHIP CO., TORONTO.

Necbing	Jno. Ewart	A. F. Foote
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C.P.R. UPPER LAKE FLEET, OWEN SOUND, ONT.

Alberta	L. Payette	A. Cameron
Athabasca	Geo. McDougall	W. McKay
Manitoba	E. B. Anderson	W. Lewis

CENTRAL CANADA COAL CO., BROCKVILLE, ONT.

Samuel Marshall	Jno. Bouchard	H. Gerrow
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J. AND T. CONLON, THOROLD, ONT.

Erin	P. Sullivan
F. L. Danforth (schooner)	B. McIntyre

J. B. FAIRGRIEVE & CO., HAMILTON, ONT.

Arabian.	J. V. Trowell	W. H. Cunningham
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G.T.R. CAR FERRIES, WINDS O.R. ONT.

Great Western	M. Bausetto	W. Belson
Huron	—, Baillargeon	Jos. Ladds.
Lansdowne	H. Oldenberg	
	O. Lalonde	
	F. D. Forrest	Jos. Taylor
	Jno. Jackson	

HAMILTON AND FORT WILLIAM NAVIGATION CO., HAMILTON, ONT.

Donnacona	J. W. Mawdsley	J. S. Dugeid
Strathcona	Jno. Irving	W. Harman

HAMILTON AND MONTREAL NAVIGATION CO., HAMILTON, ONT.

Lake Michigan	J. H. Fitzgerald
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LAKE ONTARIO AND BAY OF QUINTE STEAMBOAT CO., KINGSTON, ONT.

Aletha	J. A. Roys	C. McSorley
Caspian	W. Bloomfield	
North King	J. J. Jarrell	O. J. Hickey

J. & J. T. MATHEWS, TORONTO

Haddington	Jas. Delaney	R. W. Ross
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MERCHANTS' LINE, MONTREAL.

City of Montreal	A. Lefebvre	F. Hamelin
Cuba	A. Monpittit	E. Hamelin
Melbourne	H. Vaughn	

MIDLAND NAVIGATION CO., MIDLAND, ONT.

Midland King	W. H. Featherstonehaugh	E. Abney
Midland Queen	F. Burke	

MIDLAND TOWING AND WRECKING CO., MIDLAND, ONT.

Magnolia	Jos. Clarke	Jno. Doran
Menodora	C. Gould	H. Chester
Metamora	E. Burke	F. Chester
Minitaga	Geo. Kinnel	Jno. Kinnel
Reliance	R. Burke	Jas. McGregor
Traveler	Jas. Tyndal	F. Goodwin

NEW ONTARIO STEAMSHIP CO., HAMILTON, ONT.

Neepawah	O. Pattenade	Jas. Smeaton
Wahcondah	H. Zealand	Jno. Waller

NIAGARA NAVIGATION CO., TORONTO.

Chicora	R. Clapp	H. Parker
Chippewa	J. McGiffin	G. Arnold
Corona	H. Solmes	A. F. Woodward
Ongiara	H. McIntyre	C. Merriman

NORTHERN NAVIGATION CO. OF ONTARIO, COLLINGWOOD, ONT.

Britannic	M. McLean	I. Boyd
City of Collingwood	A. M. Wright	C. Robertson
City of Midland	F. G. Moles	S. Burgess
City of Toronto	P. Dusome	B. F. Osborne
Germanic	W. G. Cox	J. W. Aston
Huronic	R. D. Foote	F. Brisbane
Majestic	G. H. Playter	W. Whippes
Monarch	E. Robertson	A. Morton
United Empire	A. L. Campbell	H. Myler

ST. LAWRENCE AND CHICAGO STEAM NAVIGATION CO., TORONTO.

Algonquin	W. H. Wright	J. W. Taylor
Iroquois	Jas. McNaught	W. Harwood
Rosedale	P. J. Shaw	Jas. Findlay
W. D. Matthews	Jas. Ewart	E. J. O'Dell

W. J. PULLING, WINDSOR, ONT.

Juno	A. McInnes	S. Kerby
Sligo (schooner)	Jno. McPherson	
Vesta	N. McDonald	

VICTORIA LUMBER CO., TORONTO.

Charlton (tug)	D. Burke	J. Ridinim
Reginald (tug)	F. Lunan	
Tadousac	S. Hill	J. G. Fisher

Suspension of Canal Tolls.

We are advised by the Department of Railways and Canals that the abolition of the canal tolls is to be continued for this year's season of navigation. The council of the Montreal Board of Trade recently took the matter up and wrote the Government asking that the free canals be maintained, and further, that a deputation would be sent to Ottawa to urge the contention if it were necessary. In reply, the Premier wrote:—"All I can say at present is that this subject is well known to us, and there is no necessity for any deputation." All tolls on the canals were, by orders-in-council of April 27, and May 19, 1903, abolished for the seasons of 1903 and 1904. In the fiscal year ended June 30, 1902, the amount of tolls collected was \$236,942.72, and from July 1, 1902, to the end of that season of navigation the tolls amounted to \$159,959.56. The total tonnage passing through the canals during the season of navigation of 1903 was 9,203,817 tons, against 7,513,797 tons in 1902. These figures include the tonnage passing through the Sault Ste. Marie canal, which was 5,511,868 tons in 1903, and 4,729,268 tons in 1902.

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TERMS OF PAYMENT.

An actual settler may purchase not more than 640 acres, on the ten instalment plan by paying a cash instalment at time of purchase, interest at six per cent. on the unpaid purchase money at the end of the first year, and the balance of the principal with interest in nine equal instalments annually thereafter as shewn in the following table:—

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" " 3.50 " " " 83.90, " " " 28.58 " " 70.00	
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" " 4.50 " " " 107.85, " " " 36.73 " " 90.00	
" " 5.00 " " " 119.85, " " " 40.81 " " 100.00	
" " 5.50 " " " 131.80, " " " 44.89 " " 110.00	
" " 6.00 " " " 143.80, " " " 48.98 " " 120.00	

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

DISCOUNT FOR CASH.

If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. on five-sixths of the purchase money.

Interest at six per cent. will be charged on overdue instalments.

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Land Commissioner C.P.R. Co., Winnipeg.

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THE GRAND TRUNK RAILWAY COMPANY OF CANADA

NOTICE is hereby given that the ordinary general half-yearly meeting of the Grand Trunk Railway Company of Canada will be held at the City Terminus Hotel, Cannon Street, London, E. C., on Thursday, the 13th day of April, 1905, at 12.00 o'clock noon, precisely, for the purpose of receiving a report from the Directors, for the election of Directors and Auditors, and for the transaction of other business of the Company.

Notice is also given that a resolution will be submitted to the meeting for the purpose of reducing the number of the Directors.

Notice is also given that the Transfer Books of the Company in London and Montreal will be closed from Monday, the 13th day of March, to the day of meeting, both days inclusive.

By order,

C. RIVERS WILSON, President.

H. H. NORMAN, Secretary.

Dashwood House,

9 New Broad Street, London, E.C.,

3rd March, 1905.

Niagara Navigation Co.'s New Steamer.

The Niagara Navigation Co. has placed an order for the construction of a new steel steamer, specially designed and arranged for the express passenger service between Toronto and Lewiston, N.Y. The new steamer has been designed on the same general lines as the Chippewa and Corona, but differs from them in that she will be propelled by twin screws instead of paddle wheels, and will have her internal arrangements planned on the most modern lines to afford the greatest accommodation and comfort for passengers.

The steamer will have the following dimensions:—length, 317 ft. 6 in. over all; beam, 51 ft., 8 ins.; depth, 15 ft., moulded; draught, 10 ft. She will be driven by twin screws, power being supplied by two sets of engines of the vertical inverted, direct acting, quadruple expansion type, balanced on the Yarrow, Schlick and Tweedy system, having cylinders 17½ in., 25 in., 36 in., and 52 in. diameter, by 30 in. stroke. Steam will be supplied by six Scotch marine boilers at a working pressure of 210 lbs. The Ellis & Eaves suction system of forced draught will be fitted. The steamer is to have a guaranteed speed of 22½ miles an hour, so that in all probability the engines will be capable of making a speed of about 20½ knots an hour. The hull will be constructed of steel, and will be divided into eight compartments by seven watertight bulkheads, thus rendering her practically unsinkable. The steamer will have two smoke stacks similar to the other vessels of the line.

The vessel is planned on the lines of the day service observation type of steamers, having four principal decks, namely, main deck, promenade deck, upper promenade deck, and lower or orlop deck below the main deck. There will be three gangways on each side, the forward ones for passengers and express, the middle ones for passengers' baggage and the aft one for passengers only. This latter will lead directly into the entrance hall on the main deck, at the forward end of which will be found the purser's office, a parcel checking room and other offices with which passengers have to come in contact. At the aft end will be the ladies' retiring room, which will be specially fitted for the comfort and convenience of ladies, and will include a number of new features. At the forward end a staircase 7 ft. wide will connect the entrance hall with the promenade deck above. The dining-room will be forward on the main deck, and will be fitted with large observation windows on each side, so that an uninterrupted view may be had. It will have a seating capacity for 150. The main deck will be of steel covered with wood, and interlocked rubber tiling will be used as a flooring in several parts of the vessel devoted to passenger accommodation. On the promenade deck the principal feature will be the general saloon, which will extend the full width of the steamer. It will be a particularly handsome apartment, and the sides, instead of being straight, will consist of a series of bow windows, so that views may be had ahead and astern as well as straight out. At each bay seats will be provided so that small parties may keep together. Two of the bays will be finished as private parlors, which will be available for letting to parties who desire to be alone. The upper promenade deck, which will be reached by a stairway from the general saloon, as well as by stairways from outside on the promenade deck, will extend over the whole vessel, instead of ending just forward of the wheelhouse as in most vessels of this type. The rail will be inside the lifeboats, and the entire width of the deck will be available for passengers. The captain's quarters, the wheel house, and the pilot's room will be on this

deck. A light shade deck amidships will give shelter over this deck. The space over the engine room, instead of being closed in with steel plates, will be surrounded with a framework in which plate glass sides will be fixed so as to enable passengers to have a view of the machinery. On the lower or orlop deck will be found the crews' quarters, kitchens, smoking room, engines and boilers, etc. The whole of the interior has been planned so as to provide the greatest accommodation for the passengers, and for the convenience of the crew in working the steamer.

The decorations will be particularly striking. The entrance hall will have a heavy beam ceiling; the main stairway will be in cathedral oak; the dining-room in mahogany, and other portions of the passenger accommodation in weathered and quartered oak. The designs show some very fine effects and will present a rich and artistic appearance. The furnishings of the various rooms will be in harmony with the general decorative design and color scheme.

The steamer will be constructed by the Canadian Shipbuilding Co., Toronto, of which F. Nicholls is President, and A. Angstrom, General Manager. It will be ready for service in 1906.

The Lake Freight Outlook

A Winnipeg correspondent writes us as follows:—"The outlook for the coming season is for a fair business for the bulk freighters, as stocks of wheat, etc., at Port Arthur and Fort William will be about the same as last year at the opening, and reports from the twin ports are that the opening this season should be fully three weeks earlier than a year ago, which would bring it about the middle of April, as the past winter has been comparatively mild and short, and the ice is a great deal lighter than in former years.

"Stocks of wheat, etc., will probably amount to 10,000,000 bush., and first trip rates of 2 cents a bushel to Georgian Bay and Lake Huron ports are already being quoted by vessel owners, with ½c. over for Buffalo. Montreal rates will be 5½ to 6c., and vessel men expect to hold these rates until at least the second month after opening, but as there are now less than 8,000,000 bush. of wheat left in the interior, according to the Northwest Grain Dealers' Association, rates will have a tendency to drop after the first month, especially the Buffalo rate, which will be in competition with U.S. vessels, which handle a large percentage of coal into the twin ports and which will be eager for return cargoes.

"The coal tonnage will show a decided increase during the coming season as the past winter has left the docks with but a small reserve, and owing to the vast increase in population west of the lakes which is expected this spring, the coal handlers are all figuring on increasing their facilities fully 25%. Rates on coal have in the past been considered unsatisfactory by the vessel interests, owing to the delays in discharging at this end, and an effort is being made to place rates on a higher level during 1905.

"The package freighters are watching with considerable interest the advent of a U.S. line of package freighters between Buffalo and Port William, in connection with the C.P.R., as this business has in the past been the cream of the Montreal-Port William liners, but as the package business has been rapidly on the increase during the past three years the new line will probably prove a successful venture and will not affect the Canadian liners to any great extent. The export flour trade should show a decided increase the

coming season, as wheat values are slowly reaching the export level, and the Canadian millers are again figuring on securing their share of this trade, which in view of the shortage of milling wheat now prevailing in the Western States will keep the Minneapolis millers out of this trade for some time.

"The U. S. Treasury Department ruling on the matter of milling Canadian wheat in bond has not had the effect of cleaning up the Canadian surplus, as considerably less than 1,000,000 bush. were diverted from Canadian channels in this manner."

In connection with the above it may be mentioned that the grain carriers section of the Dominion Marine Association have agreed on a minimum rate from Fort William and Port Arthur to Georgian Bay ports of 2c. a bushel, and from Fort William and Port Arthur to Montreal of 6c. a bushel. The latter rate may include marine insurance.

The Montreal Transportation Co. is reported to have chartered three of its boats to carry grain cargoes on the opening of navigation from Fort William to Montreal, at 6c. a bush., including marine insurance.

Notices to Mariners.

The Dominion Department of Marine has issued the following notices to mariners:—

No. 7. Feb. 4.—British Columbia—Washington—18. Submarine telephone cable laid between Vancouver Island and the mainland.

No. 9. Feb. 8.—Ontario—24. Lake of the Woods, mouth of Rainy River, new range lighthouses.

No. 10. Feb. 13.—Ontario—27. Lake Ontario, Simcoe Island, Nine Mile point light-station, change in fog alarm. 28. Niagara River mouth, Niagara-on-the-Lake, fog alarm established.

No. 11. Feb. 22.—New Brunswick—30. South coast, Bay of Fundy, Passamaquoddy Bay, St. Andrew's bar, Navy Island, lighthouse established. Nova Scotia—31. Strait of Northumberland, Pictou Island, west end, character of new light.

No. 12. Feb. 23.—British Columbia—32. Fisher Channel, Walbran rock, buoy established. 33. Chatham Sound, Inskip passage, Port Simpson entrance, harbor reef, buoy established.

No. 13. Feb. 28.—British Columbia—34. Strait of Georgia, Entrance Island, temporary light.

The United States Hydrographic Department has issued an index to the notices to Mariners issued by it during 1904.

Maritime Provinces and Newfoundland.

The Reid Newfoundland Co., we are advised, has no present intention of placing another steamer on the route between Sydney, N.S., and Port-aux-Basques, Nfld., as stated in recent press reports.

We are advised that while plans and tenders have been under consideration, the Canada Atlantic and Plant Steamship Co. has not arrived at a decision respecting the new steamer which it is proposed to order.

The Eastern Steamship Co. has placed an order in the U.S. for two turbine steamers, 300 ft. long, and to have a speed of 20 knots an hour. One of the steamers is intended for the run between Boston, Mass., and St. John, N.B.

The marine railway at North Sydney, N.S., has been purchased for \$25,000 by a local syndicate, the composition of which has not

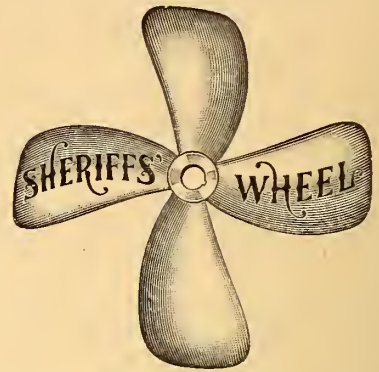
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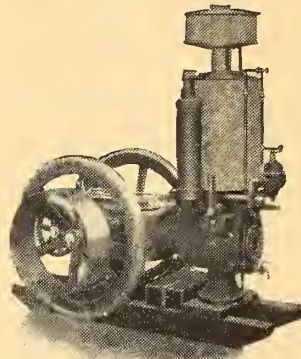
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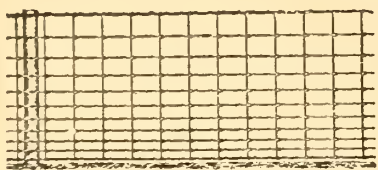
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been disclosed. The purchasers, it is stated, will improve the plant and make it available for larger vessels.

The report of the Eastern Steamship Co. shows earnings for 1904 of \$1,447,783; operating expenses, \$1,165,099; charges, \$72,177; surplus, \$210,505. A dividend of 3% was paid, leaving a balance of \$120,000. The company has a capital of \$3,000,000.

The Tidal and Current Survey Branch of the Department of Marine has issued tide tables for Charlottetown, P.E.I.; Pictou and St. Paul Islands, N.S., with tidal differences for Northumberland Strait, the southwestern side of the Gulf of St. Lawrence, the north coast of Prince Edward Island and Cabot Strait.

The Strathern Shipping Co. has been incorporated under the Dominion Companies' Act, with a capital of \$16,000 and offices at Halifax, N.S., to acquire the barque Strathern, and carry on a general shipping business in Canada. The provisional directors are: H. McInnes, W. H. Fulton, J. B. Kenny, T. W. Murphy, H. McK. Mosher, of Halifax.

The winter steamers, Minto and Stanley, operating between Pictou, N.S., and Georgetown, P.E.I., were unable to leave port for over a month prior to Mar. 3, on which date they got within two miles of each other, a heavy ice field lying between. The Stanley's passengers and freight were transferred across the ice to the Minto, and so reached Pictou. The service was maintained in this way for some days until the steamers were frozen in.

The fleet of the Dominion Coal Co. for 1905 will consist of its own steamers Cobban, Louisburg, Cape Breton, Bonavista and Caconda; the chartered steamer Turpin for the coasting trade alone; and the following chartered coal carrying steamers: Catalone, Mystic, Dominion, Troudegold, Tancred, Britannie, Harrod, Ovidia, Smyrna and James Ross. The latter is a new steamer now being built at Middlesboro-on-Tees, Eng., and will have a capacity of 7,000 tons.

The Interprovincial Navigation Co. of Canada is composed of residents of Campbellton, N.B., and the counties of Bonaventure and Gaspé, Que., and is managed by F. S. Blair and D. E. Richards, of Campbellton. The company proposes to develop the Baie de Chaleur route, upon which the str. Admiral plied for years with Dalhousie, N.B., as the westerly terminus. The easterly terminus will be at Gaspé, Que. The company's str. Lady Eileen will leave Campbellton every Wednesday and Saturday, upon the arrival of the I.C.R. Maritime express from Montreal, but later in the season the Saturday trip will be run in connection with the Ocean Limited. The tourist travel into this district has been growing for some years, and a more modern and commodious steamer was necessary in order to provide the accommodation demanded. The Lady Eileen is a steel twin screw steamer, built at Glasgow, Scotland, having the following dimensions:—length, between perpendiculars, 168 ft.; over all, 185 ft.; breadth, 31 ft.; depth, moulded to main deck, 11 ft., 6 in.; draught, 9 ft., 6 in. She is fitted with steam steering gear and capstan, steam winch aft, steam elevator for handling cargo quickly; steam heated; is equipped throughout with electric light and is provided with a 5,000 candle power search light. She has sleeping accommodation for 100 first-class and 50 second-class passengers, and a hold capacity for 350 tons of cargo. She has two sets of triple expansion engines, cylinders, 12 in., 20 in. and 32 in. diameter, by 24 in. stroke, steam being supplied by two Scotch marine boilers 12 ft. 6 in. diameter by 10 ft. long, at a working pressure of 180 lbs. The Lady Eileen will be commanded by Capt. L. J. Pouliott, who for the past 20 years commanded the str. Admiral on the route.

Province of Quebec Shipping.

The Montreal Transportation Co. has chartered two of its barges to carry pulpwood.

The new str. Montreal will be placed in service by the Richelieu and Ontario Navigation Co. May 23, on the run between Montreal and Quebec.

A movement has been inaugurated in Montreal to have that port declared to be a free and national port under Government supervision, and a petition asking for this is being arranged for.

The Quebec Steamship Co. has been voted a subsidy of £4,500 for the first year and £2,500 for the second year, from the Bermuda Legislature, in connection with the improvement of the New York-Bermuda service, by the addition of the new twin screw str. Bermudian.

The Richelieu and Ontario Navigation Co. has offered to sell to the Montreal City Council the ferry steamer Le Cultivateur, and the whole ferry outfit for \$40,000, so that the city could operate the ferry between Montreal and St. Helen's Island, or the company will continue to operate the ferry for a bonus of \$2,000 a year.

The Dominion Government is being asked to continue the subsidy of \$10,000 a year to Davis & Son, of Levis, Que., in consideration of their keeping the wrecking steamer Lord Strathcona and plant in readiness to assist vessels stranded above or below Quebec, on such conditions of service as the Government may deem reasonable.

Cunningham and Wells (Ltd.) has been incorporated under the Dominion Companies' Act, with a capital of \$250,000, and offices at Montreal, to acquire the business of Cunningham & Wells, carters and carriers, and in connection therewith to operate barges, tugs and steamers. The provisional directors are: Jno. F. E., and W. N. Cunningham; W. J. Wells and M. Armstrong, of Montreal.

G. Greene, jr., a New York engineer, has been engaged by the Department of Marine to examine the plans of the sheds which it is proposed to erect at Montreal. The plans were prepared by J. Kennedy, the Harbor Commissioner's engineer, and after having been approved by that body, some objection was taken to them by certain of the shipping interests, and a good deal of friction resulted.

The Gulf Whaling Co. has been incorporated under the Dominion Companies' Act, with a capital of \$295,000, and offices at Montreal, to purchase and operate steam and other vessels, construct wharves, docks, etc., and to engage in whaling and general trading operations in Canada. The provisional directors are T. Gauthier, P. Galibert, Rolland Prefontaine, Montreal; B. Sawyer, N. Smellie, Westmount, Que.

The str. China, hitherto operated in the Anchor Line of Buffalo, N.Y., has been purchased by Canadian owners, and will be run during the coming season in the line of steamers operated by G. A. Jaques & Co., Montreal. The China will be run between Cleveland, Toledo, Ohio, and Montreal. The China is an iron screw steamer, built at Buffalo, N.Y. in 1871, having the following dimensions: length, 210 ft.; breadth, 32 ft.; depth, 14 ft.; gross tonnage, 1,239 tons; net tonnage, 931 tons. The steamer will be overhauled and refitted with new boilers, and a new fore and aft engine, before being put on the route.

Ontario and the Great Lakes.

F. S. Spence has been elected Chairman, and J. T. Matthews, Vice-Chairman, of the Toronto Harbor Commissioners for the current year.

The steam tug Queen, heretofore engaged on Lake Nipissing, has been purchased by W.

B. McLean & Co., and has been transferred to Trout Lake.

The Dominion Government is preparing to erect a dock, wharf, storehouses and other buildings at Windsor, Ont., as a permanent depot for the lake cruiser Vigilant.

Negotiations are reported in progress with the Thousand Islands Steamboat Co. for the purchase of its str. Pierpont, at present laid up at Cornwall, Ont. The price offered is reported to be \$12,000.

The str. City of Grand Rapids has been purchased by Capt. Averill, of Cleveland, Ohio, who purposes placing her on the run between that city and Port Stanley, Rondeau and other points on the Ontario shore of Lake Erie.

The Ontario and Quebec Navigation Co. has been incorporated under the Ontario Companies' Act, with a capital of \$50,000, and offices at Picton, Ont., to carry on a general transportation business. The provisional directors are B. R., Jas. DeC., and R. G. K. Hepburn, of Picton, Ont.

The Farrar Transportation Co., Collingwood, Ont., declared a dividend of 10% for the year 1904, and decided to purchase a second steamer of full canal size. The directors for the current year are: Capts. Scott, F. A. Bassett, and Pearson, T. Wylie, — Ferris, W. R. Roland, W. Carmichael, G. E. Fair, and — McCallum.

The Marine Transportation Co. of Ogdensburg has been incorporated under the laws of the State of New York, with a capital of \$20,000, to operate steamers on the Great Lakes and on the St. Lawrence River, from Ogdensburg, New York, to Prescott, Ont. The directors include G. L. Ryan, of Ogdensburg, N.Y., and H. J. Bartlett, of Orillia, Ont.

The Canadian Ore Dock Co. has been incorporated under the Ontario Companies' Act, with a capital of \$500,000, and offices at Toronto, to construct docks, wharves, etc., at Port Arthur, Ont. The company is being organized in connection with the blast furnaces, etc., which it is proposed to construct at Port Arthur, in which Mackenzie, Mann & Co. are interested.

W. P. Hinton, General Freight and Passenger Agent, Canada Atlantic Ry., Ottawa, writes that the "actual result of elevation to boats from Fort William and Port Arthur to Depot Harbor, Ont., during last season of navigation was 7,310,213 bush., or half of the entire quantity of Canadian grain moved to Canadian ports." This is in correction of figures published in our last issue.

A clam dredge was launched at the Polson Iron Works, Toronto, Mar. 1, for use at Toronto Island. It is 87 ft. long, 35 ft. beam, and 7.1 ft. deep. The hull is divided into seven bulkheads, three of which are watertight; and is planked with 6 in. boards on the sides, and 4 in. boards on the bottom. The dredge will carry a 40 ft. dipper crane, operated by an independent hoisting engine.

The Montreal and Lake Erie Steamship Co. has been incorporated under the Dominion Companies' Act, with a capital of \$180,000 and offices at Toronto, to carry on a general navigation business, wreckage and salvage operations, and to construct wharves, etc. The provisional directors are: James Carruthers, C. A. Jaques, Montreal; J. H. Hall, Ottawa; W. D. Matthews, F. D. Benjamin, S. Samuel, C. W. Bond, and Geo. Summerville, Toronto.

The Algoma Central and Hudson Bay Ry. has decided to operate a line of steamers between Toledo, Ohio; Owen Sound, Parry Sound and intermediate ports along the north shore of Georgian Bay, to Sault Ste. Marie, Ont., during the summer. The King Edward will run from Toledo to Sault Ste. Marie; and the Ossifrage and Minnie M. will run between



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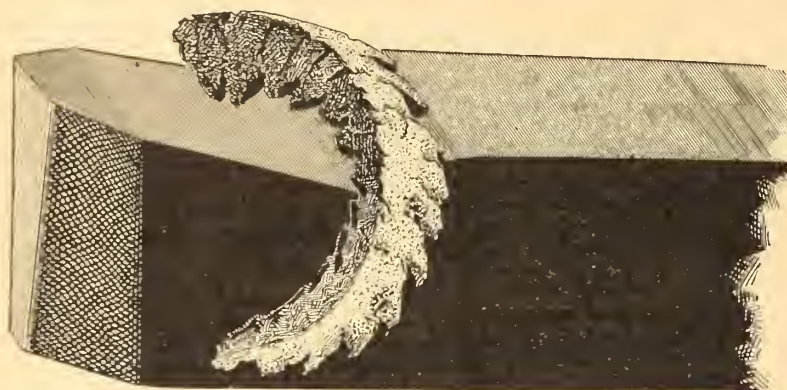
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The Ottawa Transportation Co. is building, at its Hull, Que., yard, two barges, each about 120 ft. long, 24 ft. beam, and 9 ft. depth of hold. The hulls are being built of B.C. fir. The barges will be ready for the opening of navigation, and are for the company's trade between Ottawa and Montreal. The company's fleet this year will consist of five tugs and 64 barges. Its principal freight from Ottawa to Montreal consists of lumber, and the return freight is mainly coal and sulphur.

A syndicate represented by J. J. Boland & Co., Buffalo, N.Y., has purchased the steamers Eben Ward and J. M. Nicol of the old Ward Line, and the str. Juniata of the old Anchor Line, and it is stated that they will be operated as the Canadian Fort William line. The starting point of the line will be at Buffalo, calling at Cleveland, Detroit and St. Clair River ports, or any other ports where a sufficiency of package freight business may be picked up; Sault Ste. Marie, Mich., and Fort William, Ont., where connection will be made exclusively with the C.P.R. The Juniata is the only steamer which requires much in the way of repair, and when the repairs are completed she will be named the Winnipeg.

The annual meeting of the Rideau Lakes Navigation Co. was held at Kingston, Ont., Mar. 8, after adjournment from Feb. 8. The officers and directors for the current year are:—President and General Manager, Capt. D. Noonan, Kingston; Vice-President and Secretary-Treasurer, C. Adams, Toronto; other directors: Jno. Foley, Westport, Ont.; J. H. Adams, Toronto, and E. E. Fleming, Kingston. The capital of the company is \$100,000, of which \$60,000 has been paid up. It owns two steamers—Rideau King and Rideau Queen—and carries on a regular passenger and freight business between Kingston and Ottawa, via the Rideau Canal and lakes. A press report states that the company has decided to run its steamers to Clayton, N.Y., this season, to meet the trains of the New York Central and Hudson River Rd.

The Northern Navigation Co.'s officers and agents met in Collingwood recently, and discussed plans for the forthcoming season. The services to be given include the following:—from Collingwood to Sault Ste. Marie, via Meaford and Owen Sound, returning by the same route, Tuesdays, Thursdays and Saturdays, to be made by the steamers City of Collingwood, City of Midland, and Germanic; from Collingwood to Parry Sound, Byng Inlet and French River, regular trips will be made by the Britannic; from Collingwood to Penetanguishene and Parry Sound, continuing to Point au Baril, three days a week, daily trips by the City of Toronto; from Sarnia to points on Lake Superior, regular trips by Huronic, United Empire and Monarch; and a new route will be opened between Toledo and Sault Ste. Marie, calling at Windsor, Detroit, Sarnia, Goderich, Killarney and other ports, by the str. Majestic.

Petitions have been presented to the House of Commons on behalf of the York County Council and the City of Toronto, protesting against the passing of an act to incorporate the Canadian Canals Corporation to construct a canal and portage railways from Georgian Bay to Lake Ontario. Opposition is being given to the passing of the bill through committee by the Toronto City Council. A deputation representing various municipalities in York County, and the Trent Valley Canal Extension Association, recently waited on the Government to urge a project of canal extension in the county. The plan advocated is the construction of a canal from Lake Simcoe, about nine miles to Aurora, by way of Holland Landing, Newmarket and Aurora, so as to enable the products of these towns to enter

the Trent Valley Canal at Beaverton, and get an outlet by water transport. Other projects which are suggested are to extend a canal from Lake Simcoe to Schomberg, to connect Sutton by a canal with the lake, and to deepen the Holland River.

An examination of the Ottawa-Georgian Bay navigation route has been undertaken by the Public Works Department and surveys are now under way. This is the first thorough examination of the project ever undertaken. W. Shanley made a partial survey and submitted a report to the Legislative Assembly of Canada in 1858, and T. C. Clarke made another partial survey and reported in 1860. Both of these surveys were for a 12 ft. barge navigation. The present examination is to determine the excavation and structures necessary and the right-of-way required for a navigation of not less than 22 ft. in depth. The line from Montreal to Georgian Bay, 430 miles, is divided into three districts, the first of which is from French River to Des Joachines in charge of S. J. Chapleau, District Engineer; the second district extending to Ottawa is under E. J. Rainboth, District Engineer, and the third extending to Montreal under C. R. Coutlee, District Engineer. A. St. Laurent is Engineer in charge at Ottawa, and E. D. Latleur, Chief Engineer of Public Works, is the President of the Board, which is constituted of the engineers named. It is hoped to complete the field work this year. The route of the proposed canal extends from the mouth of the French River to Montreal. It follows the French River and Lake Nipissing; passes, at the height of land, through Trout, Turtle and Talon Lakes; follows the Mattawan River to its junction with the Ottawa, thence down the Ottawa as far as Montreal, leaving the bed of the river occasionally to evade difficult points. Sixty-two miles of this route having been carefully surveyed in 1901, there remained 368 miles to be covered by the new survey. It was decided from the beginning that the information gathered to study the feasibility of the route, to prepare plans and make a close estimate of the cost of the whole route, should be entirely original, and that old plans from old, partial surveys should be used only as preliminary information and for general guidance.

Manitoba and Northwest Territories.

A deputation from Winnipeg, Brandon and other points in Manitoba, recently waited on the Dominion Government urging the dredging of the Assiniboine River between Winnipeg and Brandon.

P. Paradis, Dominion Government engineer, has concluded an inspection of the Saskatchewan River at Prince Albert, Sask., with a view of reporting as to the work necessary to be done in order to improve the navigation.

The Hudson's Bay Co.'s str. Stork, which left Moose Factory, Ont., on Hudson's Bay, for London, Eng., in Sept., 1904, and on which re-insurances at 75 guineas per cent. premium were effected, owing to her non-arrival, was caught in the ice in Hudson's Straits, and returned to the bay to winter. Direct news of the vessel reached Winnipeg by a courier from the ship, Feb. 27. The last occasion on which the company's steamer had to winter in the bay was in 1891.

B.C. and Pacific Coast Shipping.

The Dominion Government steamer Quadra is being given a pretty general overhaul at Esquimalt, B.C.

A large railway car ferry has been built at Vancouver, B.C., for transporting railway cars between Comox, B.C., and a nearby smelter.

The property acquired by the C.P.R. by its purchase of the Esquimalt and Nanaimo Ry. includes the steamers City of Nanaimo, Joan and Czar.

The Dominion Government has placed a contract at New Westminster, B.C., for the construction of a new snag boat. The new steamer will be 150 ft. long, 30 ft. beam, and 6 ft. depth of hold, and will replace the Sampson, now in operation on the Fraser River.

The British Columbian Steamship Trading and Agency Corporation, a London, Eng., company, owning the barque Perseverance, and engaged in general trading along the B.C. coast, has assigned. Its liabilities are stated to be £1,990 to creditors, with no assets; and to shareholders there is a deficiency of £2,942.

The official report on the affairs of the Victoria and Esquimalt Pilotage Board, which resulted in the cancellation of the appointment of E. C. Baker as Secretary-Treasurer, recommended that the Secretary-Treasurer should not be a member of the board as at present, and that the accounts of the board should be audited annually.

Following are the officers of the Pacific coast division of the Merchants' Service Guild of Canada:—President, Capt. W. Cox, Victoria; First Vice-President, Capt. T. H. Brown; Second Vice-President, Capt. G. Robertson, Nelson; Secretary-Treasurer, J. J. Martin, Victoria; Trustees, Capts. C. Eddie, Vancouver; G. Robertson, Nelson; T. H. Brown, Atlin; J. T. Walbran, W. Cox, D. G. Macaulay and J. M. Newcomb, Victoria.

The present Seamen's Act contains a provision allowing a shipping master 50 cents for shipping a seaman for a vessel's crew, which applies to British Columbia only. Some difficulty was experienced in the operation of the act, and as a result vessels have been obliged to go to U.S. ports to engage crews. It is proposed to amend the act in such a way as to enable shipping masters to delegate their powers, and to charge what is regarded as a reasonable price for the work. The bill, however, has been postponed for further consideration.

The Steamboat Inspection Act.

The bill to amend the Steamboat Inspection Act, introduced this session by L. McCarthy, M.P., was referred by the House of Commons to a special committee. Deputations representing the Dominion Marine Association, and the National Association of Marine Engineers of Canada, appeared before the committee and discussed the proposed new provisions at length. The principal point on which there was a difference was upon the question of the class of engineers to be employed on tug boats, and after some discussion a compromise was effected between the Marine Engineers' Association and the tug owners, the terms of which were laid before the special committee Mar. 1. The agreement provided for the insertion of a clause by which the act would not come into force until Jan., 1906, so as to leave the traffic for the present year uninterrupted. In substitution of the words, "Provided, however, that if any of the vessels mentioned in this section except the steam yachts therein mentioned—carries passengers for or without hire, such vessel shall be deemed to be a passenger steamboat for the time being and shall be subject to all the provisions of the act from which by this section such vessel is exempt," in sub section 1, section 3 of the act of 1898, it was arranged to insert the following words: "No steam yacht used exclusively for pleasure or private use, without hire or remuneration of any kind, no tug boat and no steamboat having an engine under 11 nominal horse power single

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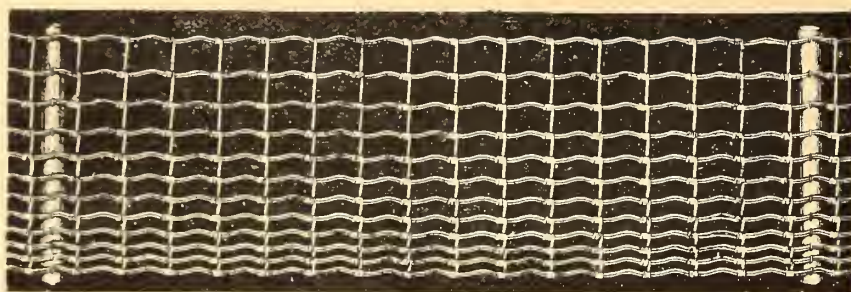
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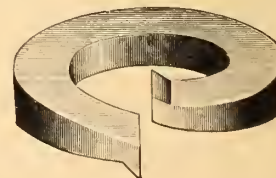
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engine and 21 nominal horse-power compound engine, shall be subject to the requirements of this act." Words were also to be added bringing yachts and tug boats of that horse-power and over under the provisions of the act respecting qualifications of engineers. It was also provided that fourth-class engineers might act as chief engineers on tugs or assistant engineers on passenger steamboats under 100 nominal horse-power, and that any engineer now in charge of a tug boat engine may receive a permanent engineer's certificate on furnishing testimony as to character and proof of 24 months' service as engineer on a tug boat. The proposed arrangement met with opposition from the members of the committee from the Maritime Provinces, and the whole question was adjourned for the purpose of obtaining further information.

Steamboat Inspection Taxes. An Order-in-Council was passed Feb. 14, abolishing the steamboat inspection tax upon U.S. steamboats plying to and from Canada from and after April 1, and instructions have been issued to the collectors of customs throughout the Dominion authorizing them to cease to collect the inspection tax heretofore imposed. U. S. steamers plying to and from Canada will, however, be subject to the Canadian steamboat inspection as heretofore, but without charge. The Dominion Government having abolished the steamboat inspection tax on U.S. steamers coming to Canada, it is expected that the U.S. Department of Labor and Commerce will at once abolish the U.S. tax imposed on Canadian steamers trading to and from the United States, as it is authorized to do by Act of Congress.

Huntsville, Lake of Bays and Lake Simcoe Navigation Co.—The adjourned annual meeting was held in Toronto recently. The report presented has not been made public, but we are advised by the management that it showed increased freight and passenger earnings for the season of 1904, no increase in the operating expenses, and considerable improvements in the equipment. The report was adopted and the directors were authorized to provide a new passenger steamer for the Lake of Bays at an estimated cost of from \$18,000 to \$20,000. The proposed new steamer will be 120 ft. long, with a width of 23 ft., and will be provided with ample dining-room and stateroom accommodation. Following are the officers and directors for the current year: President, Dr. J. H. Webb, Waterloo, Ont.; Vice-President, W. H. Patton, Toronto; General Manager and Secretary-Treasurer, W. Duperow, Huntsville, Ont.; other directors: E. J. B. Duncan, Toronto; and Capt. F. Marsh, Huntsville.

The official trial trip of the Allan Line turbine str. Victoria, at Belfast, Ireland, Mar. 4, was reported to be satisfactory. The steamer left Liverpool for Halifax, N.S., and St. John, N.B., Mar. 23.

The announcement has been made that the C.P.R. Upper Lake steamers will call at Sault Ste. Marie, Ont., as well as at Sault Ste. Marie, Mich., which heretofore has been the only calling place between Owen Sound and Port Arthur, Ont.

J. P. Mabce, K.C., is to be chairman of the Canadian Section of the International Waterways Commission. The first meeting of the section was held at Ottawa, Mar. 6, when preliminaries were arranged and a programme laid down as to what should be accomplished prior to a meeting with the U.S. section of the Commission. It is expected to arrange for a first joint meeting either at Buffalo, N.Y., or Detroit, Mich., at an early date.

The Dominion Government has entered into a contract with the Allan Steamship Co. by which it will guarantee a line of steamers

between Canada and France. The Canadian ports will be Montreal and Quebec in summer and St. John, N.B., or Halifax, N.S., in winter, the French port to be either Cherbourg or Havre, at the option of the company. Four steamers will be placed on the line and not less than 18 round trips are to be made in the year. The contract extends for three years.

The new Canadian rules for the navigation of the Great Lakes, including Georgian Bay, their connecting and tributary waters, and the St. Lawrence River as far east as the lower exit of the Lachine Canal and the Victoria Bridge at Montreal, have been issued by the Department of Marine. A notice to mariners has been issued stating that the new rules come into effect April 1, and that copies can be obtained by all interested on application to the Department at Ottawa, at the Custom House, Montreal, or from the Collectors of Customs at the principal ports on the Great Lakes. A statement showing the principal changes from the old rules appeared in our March issue. The new rules are put in force by Order-in-Council, under the provisions of an Act of 1904, amending Chap. 79 of the Revised Statutes in that way. The rules contained in Chap. 79 remain in force on all waters in Canada, except those specifically mentioned in the new rules. The reason for retaining the old rules in the waters, other than those covered by the new rules, was that it was considered unwise to change the customs of navigation on waters where Canadian vessels did not come into contact with U.S. vessels.

Among the Express Companies.

The Canadian Northern Ex. Co. has opened offices at Holmfield, Melfort, Roblin and Wakopa.

The Canadian Ex. Co. has closed its offices at Amherstburg, Ont.; Rougemont, St. Marie Salomee, St. Norbert, Que.; and Canaan, N.B.

J. C. Cummings has been transferred from the Quebec to the Montreal office of the Dominion Ex. Co., and was given a hearty send off by his friends at Quebec, Mar. 3.

The proposal made by W. F. Maclean, that the express companies should be brought under the provisions of the Railway Act, has again been defeated in the House of Commons.

The Canadian Northern Ex. Co. is now operating on the Oak Point section of the Canadian Northern Ry., including the following points:—Grosse Isle, Woodlands, Lake Frances, St. Laurent, Oak Point, Man.

The Canadian Ex. Co. has opened offices at Port Carling, Ont.; Salmon Lake, Que.; and St. Anthony, N.B. During the winter season express matter to Port Carling is subject to a stage charge from Falkenberg, Ont.

As work progresses on the Greenway extension of the Canadian Northern Ry., the Canadian Northern Ex. Co. is installing its service, covering the following points:—Glenora, Neelin, Louise, Holmfield, Enterprise, Lena, Wakopa.

The Canadian Northern Ex. Co. has placed its service on the Prince Albert section of the Canadian Northern Ry., accepting matter for Etoumami, Greenbush, Prairie River, Bannock, Mistatim, Peesane, Crooked River, Tisdale, Star City, Wentworth and Melfort.

We are advised that the Canadian Ex. Co. will commence operating over the Prince Edward Island Ry. upon the opening of navigation, and that the additional territory will be operated from St. John, N.B. Offices will be opened at the principal places on the line, but just where they will be located had not been determined.

The main line of the Canadian Northern Ry. being now in full operation to Humboldt, 425 miles west of Winnipeg, the Canadian Northern Ex. Co. is accepting shipments for Veregin, Mikado, Canora, Tiny, Buchanan, Rama, Invermay, Margo, Kuroki, Kylemore, Wadena, Paseweg, Englefeldt, Lally, Wimmer, Watson, Clairvaux, St. Gregor, Muenster and Humboldt.

The Great Northern Ex. Co., which has a capital of \$1,000,000 and head offices at St. Paul, Minn., has been registered in British Columbia as an extra-provincial company. The offices in British Columbia are at Rossland, and A. H. MacNeill is the company's attorney. The Great Northern Ex. Co. operates over the lines in British Columbia controlled by the Great Northern Ry., U.S.

"The express business of to-day is a separate and distinct branch of the commercial traffic of railway and other transportation lines, and constitutes that part of the merchandise traffic of the country which the railroad companies have found it inexpedient to handle to the satisfaction either of the public or of themselves. This business does not, as it is sometimes erroneously believed, consist alone of the parcel traffic and of shipments of money and valuables and of packages and boxes of inconsiderable weight, but it embraces that part of the shipments of nearly every weight and description for which producers, merchants, manufacturers or dealers require especially expedited transportation and a complete and effective agency and custody. Its transactions are not confined to local or prescribed territory."—Railway World.

Telegraph and Cable Matters

The C.P.R. Telegraph Department has opened a town telegraph office in Saskatoon, Sask.

Residents in the vicinity of Saskatoon, Sask., state that the service on the Government telegraph line is not satisfactory.

We are advised that the C.P.R. Telegraph Department expects to extend its line to Yarmouth, N.S., some time, but that nothing definite has been yet done in regard to it.

The Canadian Northern Telegraph Co. has opened offices at Canora, Fork River, Humboldt, Holmfield, Invermay, Mafeking, Melfort, Neelin, Roblin, St. Laurent, Sanford, Wakopa, Wadena, and Watroun.

The C.P.R. Telegraph Department has completed arrangements for carrying underground the wires from its present terminus at Little St. Antoine St., Montreal, to Windsor St., as soon as possible in the spring.

The Canadian Northern Telegraph Co. is pushing its construction work westward. Communication is now established with an office at the second crossing of the North Saskatchewan river, over 500 miles west of Winnipeg.

The Pacific Wireless Telegraph Co. has opened a station at Victoria, B.C. The present mainland station is at Seattle, Wash., but it is expected to arrange for the establishment of one at Vancouver, B.C., at an early date.

The thickly settled district through which the Oak Point section of the Canadian Northern Ry. is built now has a telegraph service given it by the Canadian Northern Telegraph Co., which has opened a commercial office at St. Laurent.

The Marconi Wireless Telegraph Co.'s officers state that the Canadian station is superior to that at Poldm, Cornwall, Eng., which accounts for the fact that the service between Canada and England is more satisfactory than that from England to Canada.

The C.P.R. telegraphers on the western lines recently sent representatives to Winnipeg, to discuss wages and other matters with

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the management. As a result, an agreement was reached by which some advances were given and other differences settled.

The Canadian Northern Telegraph Co. has taken over from the Canadian Northern Ry. Construction Department the wires west of Erwood on the Prince Albert extension, and has opened a commercial office at Melfort. Communication with Prince Albert is expected before July 1 next.

The Dominion DeForrest Wireless Telegraph Co. has been incorporated under the Ontario Companies' Act, with a capital of \$1,200,000 and offices at Ottawa, to establish wireless telegraph stations. The provisional directors are: L. J. Lemieux, F. J. Humphrey, Jos. Cardinal, A. and E. Brassard, Montreal.

The Fessenden Wireless Telegraph Co. of Canada is the title under which the incorporation of a company is sought at the current session of the Dominion Parliament, to "establish and operate a business of telegraphic or other electric or magnetic communication by means of a wireless or other system."

The proposal to extend the British-West India cable now operated between Halifax, N.S., and Bermuda, to Barbados and St. Lucia, is being regarded with favor in those islands, and a movement has been started in British Guiana, on the mainland of South America, to have the extension carried to Georgetown.

Following are statistics of the telegraph lines of the Dominion for the year ended June 30, 1904:—

	Length of line miles.	Length of cond'rs miles.	No. of offices
G.N.W. Telegraph Co.	18,286	35,721	1,455
C.P.R. Telegraphs.	10,018	45,943	1,152
Western Union Teleg. Co. .	2,784	13,069	221
Dominion telegraph lines . .	6,270	6,270	327

The Commercial Cable Co. has obtained the approval of the Dominion Government to the landing of an additional cable at its station at Canso, N.S. The first of the company's cables was laid by the cable steamer Faraday in 1881, and the proposed cable will be the fifth it will own. The new cable, which will be used principally for stock exchange work, will be made and laid by one of the British cable construction companies.

The first report of the Mackay Companies, which owns the Commercial Cable Co., and shares in other cable, telephone, and telegraph companies in the United States, Canada and Europe, has been issued. Its capital is \$100,000,000, one-half preferred and the other half common stock, of which there are outstanding \$35,968,700 of preferred, and \$41,380,400 of common stock. It has \$820,323.70 in cash and cash assets, and has no debts. The income from investments is more than sufficient to pay quarterly dividends of 1% on the preferred stock, and semi-annual dividends of 1% on the common stock. The profit and loss account shows receipts of \$1,643,676.93 from investments including the Commercial Cable Co., and from 14,692 shares in 30 other cable, telegraph and telephone companies, of which the dividends paid absorbed \$1,559,843.28, and expenses \$20,035.01, leaving a balance in hand of \$63,798.69.

The C.P.R. Telegraph Department has arranged to complete its underground system between its main office at Montreal and the Windsor Street station, and will also carry out the following construction work during the year: String an additional wire from Montreal to St. Agathe, Que., 60 miles, for commercial business. Install a complete storage battery plant at Fort William, Ont. String additional copper wire from Winnipeg to Swift Current, Assa., 511 miles. String iron wires from Brandon, Man., to Broadview, Assa., 132 miles; Calgary, Alta., to Cranbrook B.C., 275 miles; Cranbrook to Crow's Nest, B.C., 99 miles, and from Sicamous to Revel-

stoke, B.C., 46 miles. String a copper wire from Dunmore to Laggan, B.C., 302 miles; and from Laggan to Revelstoke, B.C., 146 miles. String two copper wires from Winnipeg to Emerson, Man. This will give a total of 1,089 miles of new copper wire and 612 miles of new iron wire. In addition to this there will be new pole lines and wires erected along new lines of railway under construction as fast as the rails are laid. These lines include the Guelph and Goderich Ry., the line between Toronto and Sudbury, Ont.; and the extensions in the Northwest. In addition to the new work a large amount will be expended for construction and general repairs to existing lines.

General Telephone Matters.

The telephone system at Prince Albert, Sask., is being converted to a metallic circuit system.

The Vernon, B.C. Board of Trade is promoting the formation of a local company to establish a telephone system there.

The Merchants' Telephone Co., Montreal, denies the press reports that it is about to dispose of its business to the Bell Telephone Co.

The Manitoba Government is investigating the idea of establishing a system of telephones in the province, to be owned by the Government.

The British Columbia Telephone Co. has submitted a proposition to the various towns in the Okanagan Valley to establish a telephone system there.

The Telephone Company of Prince Edward Island has constructed a steel bridge on which to carry all the cables coming into its exchange building at Charlottetown.

The local telephone system at Nanaimo, B.C., has been absorbed by the British Columbia Telephone Co. It is proposed to put in a metallic circuit and to otherwise improve the line.

The Brantford, Ont., city council has decided to re-open the local telephone question by calling for offers for the establishment of a telephone system there to compete with the Bell system.

The bill incorporating the Northwest Telephone Co. has been passed by the House of Commons, a clause being inserted compelling the company to deliver messages originating on any connecting lines.

The Kamarouska Telephone Co. has had its capital increased to \$74,000, and has been given authority to issue bonds to the extent of two-thirds of its immovable property, under the provisions of the Quebec Companies' Act.

A company has been formed at New Liskeard, Ont., with a capital of \$25,000, to construct telephone lines throughout the Temiskaming district. The company has not yet been registered. D. Stewart, New Liskeard, is Secretary-Treasurer of the provisional organization.

The Department of Marine has issued a notice detailing the marks placed to show the position of the telephone cable recently laid between Vancouver Island and the mainland of Washington, U.S., and cautioning mariners against anchoring their vessels in the vicinity.

The Fort William, Ont., town council will apply at the current session of the Ontario Legislature for an act confirming a number of by-laws, among them being one for the purpose of raising \$11,500 on debentures for the purpose of improving and extending the municipal telephone system.

The Crow's Nest Pass Electric Light and Power Co., which operates a telephone system

in Fernie, B.C., has purchased the rights of the British Columbia Telephone Co. to operate in that district. This will end the litigation which had been initiated by the Fernie town council to stop the B.C.T. Co. erecting its poles in the town.

The Bell Telephone Co. is offering to establish a rural telephone system in Waterloo county, Ont., at \$15 an instrument, and 5 cents a call to telephones on the Berlin and Waterloo exchanges, if an instrument is guaranteed for every mile of line built. The farmers who met the company's representative expressed an opinion that there should not be any charge for the calls to Berlin and Waterloo.

The People's Telegraph and Telephone Co., Ltd., has been incorporated under the Ontario Companies' Act, with a capital of \$40,000, and offices at Maynooth, Ont., to carry on a telegraph and telephone business in the northern part of Hastings county, and the southern portion of Nipissing district. The provisional directors are: W. J. Sergeant, S. Harryett, Bancroft, Ont.; W. J. Fitzgerald, T. P. Netterville, D. Smith, Maynooth, Ont.

The large number of petitions which have been presented to the House of Commons asking that an act be passed giving telephone companies power to erect poles on streets only with the approval of the local municipality, initiated a discussion in the course of which the Premier stated that perhaps the time had come when they should have some general law to regulate telephone companies and especially to guarantee and protect the interchange of traffic.

The House of Commons has appointed a committee, of which Hon. Sir Wm. Mulock has been appointed chairman, to investigate the telephone question in Canada. At the opening meeting of the committee, the Postmaster-General suggested the consideration of a plan along the lines of that adopted in Great Britain, where the trunk lines are owned and operated by the Government. He also suggested the consideration of a plan for providing telephones by local municipalities somewhat on the lines adopted in Sweden, where in certain towns telephones are provided in every house, the cost being met out of rates.

Bell Telephone Company of Canada.

The report for the year 1904 presented at the annual meeting in Montreal, Feb. 23, stated that 8,988 subscribers were added during the year, the total number of sets of instruments now earning rental being 66,160. The company owns and operates 475 exchanges and 789 agencies. 1,242 miles of wire were added to the long distance system in 1904. The long distance lines owned and operated by the company comprise 32,211 miles of wire on 7,866 miles of poles. 20,000 shares of new stock were offered to the shareholders at 25% premium, with the option of paying for them in full or in quarterly instalments. 16,845 shares were paid up in full. \$1,916,960 was received during the year on account of stock, and \$179,210 for premium thereon. The latter amount in accordance with the company's usual custom, has been carried to contingent account. From the balance of revenue account, \$154,323.96, \$35,565.26 was carried to insurance reserve account; \$23,958.25 to accident insurance reserve account, and \$50,000 to contingent account; leaving balance of revenue to be carried to 1905, \$41,800.45.

RECEIPTS.	
Exchanges (less unearned rentals)	\$1,980,185.51
Long distance lines.	761,991.15
Private lines.	14,735.48
Miscellaneous.	176,741.57
	\$2,933,653.71

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Grand Trunk Elevators, No. 2 and No. 3, Portland, Me.	"	2,500,000 "
Export Elevator, Buffalo, N.Y.	"	1,000,000 "
J. R. Booth Elevator, Depot Harbor, Ontario	"	1,000,000 "
Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	"	1,000,000 "
Erie R. R. Transfer & Clipping House, Chicago, Ill.	"	100 cars in 10 hrs.
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	"	1,500,000 "
Burlington Elevator Co., Peoria, Ill.	"	500,000 "
Canada Atlantic Railway Elevator, Coteau Landing, Que.	"	500,000 "
Northern Grain Co., Manitowoc, Wis.	"	1,350,000 "
Union Elevator, East St. Louis, Ill.	"	1,100,000 "
Montreal Warehousing Co.'s Belt Conveyor System		

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D. R. WILKIE - - General Manager.
E. HAY - - - Asst. General Manager.
W. MOFFAT - - Chief Inspector.

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AND SIDE BLOCKS,
* * * TORONTO. * * *

EXPENSES.	
Operating.....	\$2,073,492.35
Legal.....	19,963.52
Insurance.....	25,409.14
Bond interest.....	100,000.00
Miscellaneous.....	12,883.27
	\$2,231,748.28
Net Revenue for 1904.....	701,905.43
Less dividends (Inc.) Jan. 15, 1905	588,117.60
	\$ 113,787.83
Balance Revenue from 1903.....	40,536.13
	\$ 154,323.96
Carried to insurance reserve.....	\$ 35,565.26
Carried to accident reserve.....	23,958.25
Carried to contingent account.....	50,000.00
	109,523.51
Carried forward to '05.....	\$ 44,800.45
BALANCE SHEET.	
Stock account.....	\$7,916,960.00
Bond account.....	2,000,000.00
Contingent fund, 1903.....	\$1,316,170.24
Add prem. on stock.....	479,240.00
Add from rev. acct.....	50,000.00
	1,845,410.24
Revenue account.....	44,800.45
Unearned rental reserve.....	397,087.86
Insurance reserve.....	200,000.00
Accident reserve.....	100,000.00
Bond interest reserve.....	25,000.00
Sundry creditors.....	320,253.80
	\$12,849,512.35
Plant and patent account, Dec. 31, 1903.....	\$8,098,314.23
Plant and patent account added in 1904.....	1,175,441.67
Plant and patent account, Dec. 31, 1904.....	9,273,755.90
Stores on hand.....	389,789.71
Real estate.....	1,284,930.89
Stock in other companies.....	927,056.50
Due from agencies.....	149,265.37
Debtors.....	249,011.46
Cash.....	575,702.50
	\$12,849,512.35

President C. F. Sise gave statistics relative to the growth of the corporation. Twenty-five years ago the company began business with a capital of \$397,000. To-day the capital is just a trifle short of \$8,000,000 in stock, and the bond issue \$2,000,000. In 1885 the long distance mileage was 2,000 miles; to-day it is 32,000 miles. Ten years ago there were 69,000,000 exchange connections during the 12 months; now there are 128,000,000 during the same period. Ten years ago the subscribers throughout Canada numbered 29,000; to-day there are 66,000 instruments earning rental. The 20,000 shares of new stock which had been issued during the year were readily taken up at a premium of 25% in spite of the poor money market which prevailed, and this he considered gratifying. A portion of the money accruing from this source, \$500,000, was utilized in paying off a loan from the banks. Eight years ago the company had installed apparatus in Montreal under the delusion that it was large enough for all time; now they had been obliged to abandon this for larger switchboards. The company under its charter had the right of issuing \$2,000,000 additional stock, a total of \$10,000,000 in all. This was insufficient for future contingencies, but he very much doubted if Parliament could be persuaded to grant additional powers without a great deal of trouble, owing to the opposition of some of the people of Toronto. Referring to competition, Mr. Sise said the Bell Co. did not suffer on that score, appreciably. There were many small concerns in the business but none of them were paying dividends. In the neighborhood of Quebec were a number of small corporations which had extended lines into the rural districts; they were more of a convenience to the farmer than a commercial enterprise. As regards the Merchants in Montreal, they served a class of customers who did not care to pay the price for the Bell service. Some 30 municipalities in Canada have given the Bell Co. exclusive rights. The company now owned, through process of gradual acquisition, a number of valuable buildings through-

out Canada and, on May 1, the company would move into its new building in the east end of Montreal. Much criticism had been caused by the introduction of the slot telephone. These had been introduced for the reason that certain subscribers had not lived up to their contract, which does not permit a use of the telephone by the general public. Within three days of the time the slot machine was introduced into saloons, cigar stores, etc., different firms on St. James street had come and subscribed, indicating that they had for years been conducting their business over their neighbors' phones.

The directors were re-elected. The board for the current year is President, C. F. Sise; Vice-President, Hon. R. Mackay; other directors, F. P. Fish, R. Archer, W. R. Driver, H. Paton, C. Cassils, T. Sherwin.

PURCHASING AGENTS' GUIDE.

(Continued from third page of cover.)

Car Wheels	
Jas. W. Pyke & Co.....	Montreal.
Rhodes, Curry & Co.....	Amherst, N.S.
Castings	
Crossen Car Mfg. Co.....	Cobourg, Ont.
Castings (Steel)	
Montreal Steel Works.....	Montreal.
Rhodes, Curry & Co.....	Amherst, N.S.
Cast-Steel Hammers	
American Brake Shoe & F'dry Co.....	Mahwah, N.J.
Cast-Steel Track Tools	
American Brake Shoe & F'dry Co.....	Mahwah, N.J.
Cast-Steel Wrenches	
American Brake Shoe & F'dry Co.....	Mahwah, N.J.
Cement	
Thorn Cement Co.....	Buffalo, N.Y.
Cement Machinery	
Jas. W. Pyke & Co.....	Montreal.
Coal Haulage Ropes	
The B. Greening Co.....	Hamilton, Ont.
Concrete	
Thorn Cement Co.....	Buffalo, N.Y.
Concrete Mixers and Rock Crushers	
F. H. Hopkins & Co.....	Montreal.
W. H. C. Mussen & Co.....	Montreal.
Conduit Contractors	
F. T. Ley & Co.....	Springfield, Mass.
Contractors	
F. T. Ley & Co.....	Springfield, Mass.
Contractors' Plant	
F. H. Hopkins & Co.....	Montreal.
T. A. Morrison & Co.....	Montreal.
W. H. C. Mussen & Co.....	Montreal.
Cooking Apparatus	
Geo. R. Prowse.....	Montreal.
Copperware	
Geo. R. Prowse.....	Montreal.
Corrugated Furnaces	
Continental Iron Works.....	Brooklyn, N.Y.
Cross Arms, Top Pins and Side Blocks	
Canadian General Electric Co.....	Toronto.
The Firstbrook Box Co.....	Toronto.
Cross Arm Braces	
Canadian General Electric Co.....	Toronto.
Toronto Bolt and Forging Co.....	Toronto.
Crossing Gates	
General Railway Signal Co.....	Buffalo, N.Y.
The N. L. Piper Railway Supply Co.....	Toronto.
Crowbars	
Toronto Bolt and Forging Co.....	Toronto.
Culvert Pipe (Cast Iron)	
Gartshore-Thompson Pipe & F'dry Co.....	Hamilton.
Cuts	
Acton Burrows Co.....	Toronto.
Derrick Ropes	
Dominion Wire Rope Co.....	Montreal.
The B. Greening Co.....	Hamilton, Ont.
Derricks	
F. H. Hopkins & Co.....	Montreal.
W. H. C. Mussen & Co.....	Montreal.
Diving Outfits	
W. H. C. Mussen & Co.....	Montreal.
Door Signs	
Acton Burrows Co.....	Toronto.
Drawing Materials	
Eugene Dietzen Co.....	New York.
Dredges	
The Bertram Engine Works Co.....	Toronto.
Drilling Machines	
The John Bertram & Sons Co.....	Dundas, Ont.
Drills	
W. Abbott.....	Montreal.
Dry Goods	
The Hudson's Bay Co.....	
Dynamo and Electric Castings	
American Brake Shoe & F'dry Co.....	Mahwah, N.J.
Economizers	
Babcock & Wilcox (Ltd.).....	Montreal.
Electric Car Fenders	
The G. B. Meadows Wire, etc., Co.....	Toronto.
Electric Car Route Signs	
Acton Burrows Co.....	Toronto.
Electric Car Wire Guards	
The G. B. Meadows Wire, etc., Co.....	Toronto.
Electric Cranes	
Canada Foundry Co.....	Toronto.
Dominion Bridge Co.....	Montreal.
W. H. C. Mussen & Co.....	Montreal.
Electric Ry. Brake Shoes	
American Brake Shoe & F'dry Co.....	Mahwah, N.J.
Electric Railway Builders	
F. T. Ley & Co.....	Springfield, Mass.
Enameled Iron Signs	
Acton Burrows Co.....	Toronto.
Engineers' Supplies	
The Canadian Rubber Co. of Montreal.....	
The James Morrison Brass Mfg. Co.....	Toronto.
Williams & Wilson.....	Montreal.
Engines, Hoisting	
The Bertram Engine Works Co.....	Toronto.
Engines, Stationary and Marine	
The Bertram Engine Works Co.....	Toronto.
Canada Foundry Co.....	Toronto.
Polson Iron Works.....	Toronto.
Engines, Steam	
Erie Heating Co.....	Chicago, Ill.
Williams & Wilson.....	Montreal.
Engraving	
Toronto Engraving Co.....	Toronto.
Express Office Signs	
Acton Burrows Co.....	Toronto.
Feedwater Heaters	
Babcock & Wilcox (Ltd.).....	Montreal.
Williams & Wilson.....	Montreal.
Fencing	
Canada Foundry Co.....	Toronto.
Canadian Steel and Wire Co.....	Hamilton, Ont.
Page Wire Fence Co.....	Walkerville, Ont.
Fire Brick	
Garden Sand Co.....	Chicago, Ill.
W. H. C. Mussen & Co.....	Montreal.
Pipe Escapes	
The G. B. Meadows Wire, etc., Co.....	Toronto.
Fire Insurance	
Dale & Co.....	Montreal.
Flags	
The Hudson's Bay Co.....	
Flour	
The Hudson's Bay Co.....	
Forgings	
Crossen Car Mfg. Co.....	Cobourg, Ont.
General Railway Signal Co.....	Buffalo, N.Y.
Gas and Electric Fixtures	
The James Morrison Brass Mfg. Co.....	Toronto.
Gas Pipe (Cast Iron)	
Gartshore-Thompson Pipe & F'dry Co.....	Hamilton.
Gates	
Canada Foundry Co.....	Toronto.
Page Wire Fence Co.....	Walkerville, Ont.
Gauges, Steam and Vacuum, etc.	
The James Morrison Brass Mfg. Co.....	Toronto.
Grain Elevators	
John S. Metcalfe Co.....	Chicago, Ill.
Groceries	
The Hudson's Bay Company.....	
Handcars	
Crossen Car Mfg. Co.....	Cobourg, Ont.
W. H. C. Mussen & Co.....	Montreal.
Hardware	
The Hudson's Bay Company.....	
Headlights	
N. L. Piper Railway Supply Co.....	Toronto.
Headlinings	
Crossen Car Mfg. Co.....	Cobourg, Ont.
Heaters	
Erie Heating Co.....	Chicago, Ill.

(Continued on page 179.)

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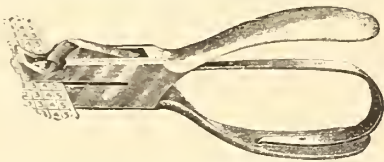
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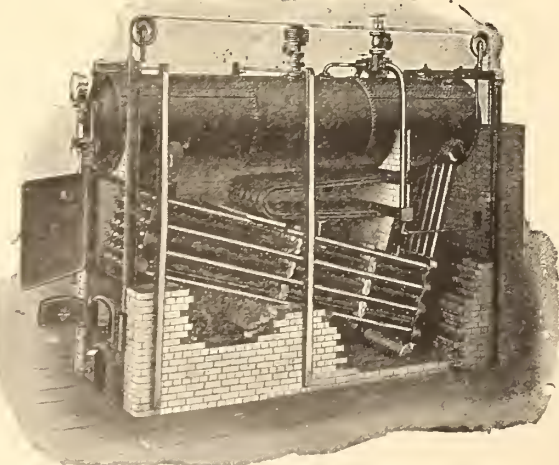
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PURCHASING AGENTS' GUIDE.

(Continued from page 177.)

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- Hose, Air Brake and Steam**
The Canadian Rubber Co. of Montreal.
- Hose, Fire**
The Canadian Rubber Co. of Montreal.
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- Injectors**
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- Instruments, Surveying and Engineering**
Eugene Dietzgen Co. New York.
- Insurance (Fire and Marine)**
Dale & Co. Montreal.
- Interlocking and Signalling**
General Railway Signal Co. Buffalo, N.Y.
- Interlocking Signals**
Montreal Steel Works. Montreal.
- Iron Fencing**
The G. B. Meadows Wire, etc., Co. Toronto.
- Iron and Steel Castings**
American Brake Shoe & F'dry Co. Mahwah, N.J.
- Iron Signs**
Acton Burrows Co. Toronto.
- Japans**
McCaskill, Dougall & Co. Montreal.
- Journal Bearings**
Canada Foundry Co. Toronto.
Crosen Car Mfg. Co. Cobourg, Ont.
Jas. W. Pyke & Co. Montreal.
St. Thomas Brass Co. St. Thomas, Ont.
- Lager Beer, &c.**
E. L. Drewry. Winnipeg.
- Lamps, Incandescent**
Canadian Westinghouse Co. Hamilton, Ont.
- Lamps and Lanterns**
The Hudson's Bay Company. Toronto.
N. L. Piper Railway Supply Co. Toronto.
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The John Bertram Sons Co. Dundas, Ont.
Williams & Wilson. Montreal.
- Launches**
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Polson Iron Works. Toronto.
- Lights, Contractors' and Wrecking**
F. H. Hopkins & Co. Montreal.
W. H. C. Mussen & Co. Montreal.
- Locomotive Boiler Washer, Automatic**
Erie Heating Co. Chicago, Ill.
- Locomotive Brass Works**
The James Morrison Brass Mfg. Co. Toronto.
- Locomotive Driver Brake Shoe**
American Brake Shoe & F'dry Co. Mahwah, N.J.
- Locomotives (Compressed Air)**
Baldwin Locomotive Works. Philadelphia, Pa.
Locomotive and Machine Co. of Montreal.
- Locomotives (Electric)**
Baldwin Locomotive Works. Philadelphia, Pa.
Canada Foundry Co. Toronto.
Locomotive and Machine Co. of Montreal.
- Locomotives (Logging)**
Lima Locomotive and Machine Co. Lima, Ohio.
- Locomotives (Rack)**
Baldwin Locomotive Works. Philadelphia, Pa.
Locomotive and Machine Co. of Montreal.
- Locomotives (Steam)**
Baldwin Locomotive Works. Philadelphia, Pa.
Canada Foundry Co. Toronto.
Canadian Locomotive Co. Kingston, Ont.
F. M. Hicks & Co. Chicago, Ill.
F. H. Hopkins & Co. Montreal.
Lima Locomotive and Machine Co. Lima, Ohio.
Locomotive and Machine Co. of Montreal.
The Saxon Engine Works. Chemnitz, Germany.
- Locomotive Stack Netting**
The G. B. Meadows Wire, etc., Co. Toronto.
- Locomotive Tile**
Garden City Sand Co. Chicago, Ill.
- Machine Tools**
W. Abbott. Montreal.
The Saxon Engine Works. Chemnitz, Germany.
Williams & Wilson. Montreal.
- Machine Screws, Set Cap and Planer**
John Morrow Machine Screw Co. Ingersoll.
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Sheriffs Mfg. Co. Milwaukee, Wis.
- Machinery, Mining**
The Bertram Engine Works Co. Toronto.
- Machinery Repairs**
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Sheriffs Mfg. Co. Milwaukee, Wis.
- Manganese Steel Castings**
Montreal Steel Works. Montreal.
- Manhole Frames and Covers**
American Brake Shoe & F'dry Co. Mahwah, N.J.
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Dale & Co. Montreal.
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The Canadian Rubber Co. of Montreal.
- Mechanical Draft Fans**
Babcock & Wilcox (Ltd.) Montreal.
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(Continued on page 177.)

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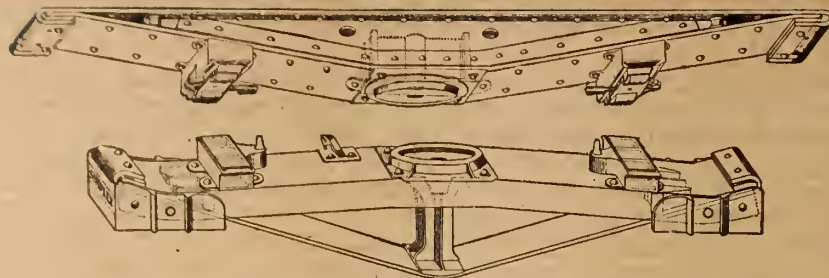
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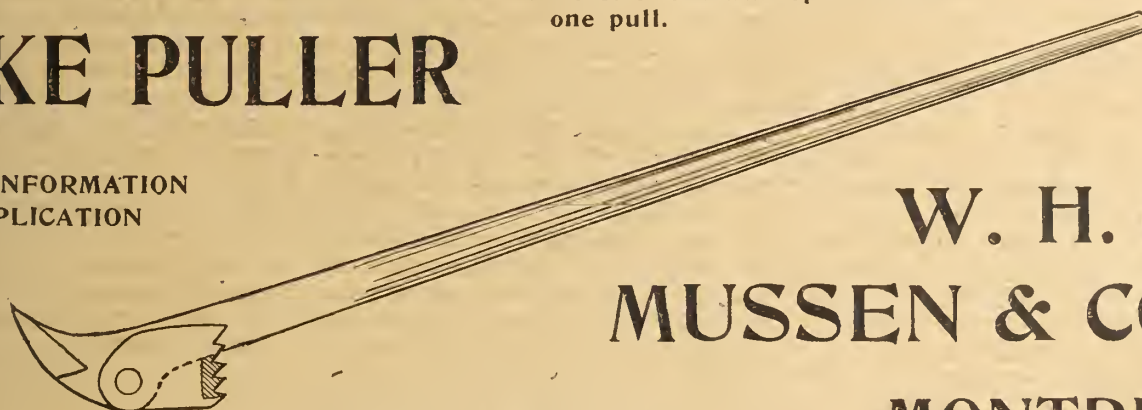
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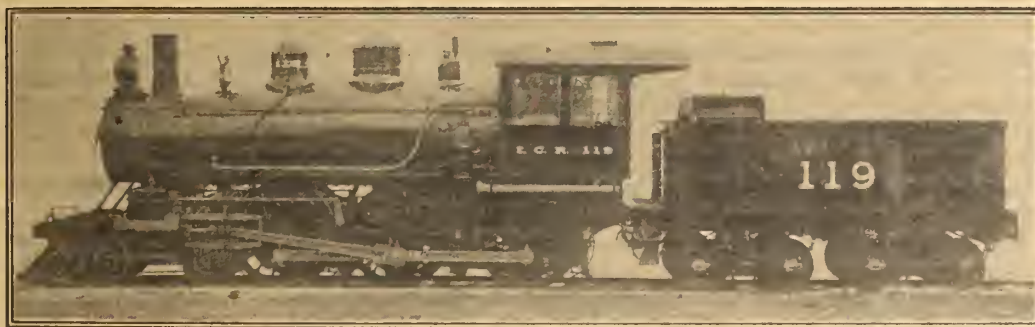
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RAILWAY DEVELOPMENT.

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Athabaska Ry. and Oil Co.—A. C. Dobell, Quebec; I. Carling, Exeter, Ont.; F. Ross, J. K. Cornwall, P. Roy, Edmonton, Alta., applied at the current session of the Dominion Parliament for the incorporation of a company with this title, and a capital of \$1,000,000, to construct a railway from Edmonton to the junction of the Athabasca and Clearwater Rivers, and to search for and deal in petroleum. The Railway Committee of the House of Commons threw out the clauses relating to the railway. (Feb., pg. 45.)

Atlantic, Quebec and Western Ry.—A contract has been let for the construction of this line to the New Canadian Co., which has started to construct a section of 15 miles from Paspebiac to Shigawak, Que. About two miles of grading has been done, together with all the culverts, and the clearing on a further six miles has been completed. This section of the contract is pretty light, there being no rock work. There will be three bridges in the 15 miles, one a 50 ft. span and one a 60 ft. span, concrete piers and steel superstructures; and one about 600 ft. long, which will be of trestlework. It is hoped to get this 15 miles completed this year. A further distance of 87 miles will have to be built to reach Gaspé, on which preliminary surveys have been made. The chief engineer is Sir Douglas Fox, London, Eng., and the resident engineer for the railway company and the construction company is J. V. Nimmo. (Mar., pg. 89.)

Bessemer and Barry's Bay Ry. It is hoped to obtain a subsidy in aid of the construction of this projected line from L'Amable, Ont., during the current session of the Dominion Parliament, and we are advised that as soon as this is arranged for construction will be started and pushed to completion. (Apr., pg. 143.)

Brockville, Westport and Northwestern Ry.—C. Harris, of Kingston, Ont., has completed a preliminary survey of this line from the present terminus at Westport, Ont., to the French River, and a location party is reported to be in the field. It is expected that some construction will be done during the current season. A Dominion Government commissioner has been investigating certain claims against the old company, which, it was agreed by the new owners, were to be discharged out of a portion of an unearned subsidy which was to be paid on the company bringing the line up to the Government standard. (Mar., pg. 89.)

Buctouche and Rexton Ry.—R. A. and J. D. Irving, J. C. Ross, A. B. Carson, J. Jardine, E. J. Smith, F. W. Sumner, are applying at the current session of the New Brunswick Legislature for an act incorporating a company with this title, with power to construct a railway from Buctouche to Rexton, and thence to Richibucto Cape, N.B. Power is also asked to amalgamate with the Moncton and Buctouche Ry., and the Kent Northern Ry., or either of them.

Cape Breton Coal, Iron and Ry. Co.—The work of grading for the line from the company's mines at Cochrane's Lake to a junc-

Great Northern Ry. of Canada.—The scheme of arrangement with the creditors of the line has been approved by the Court of Exchequer and will go into effect on the completion of the formalities. This having been completed it is expected that a commencement will be made on the construction work planned within the last two or three years. The projected extensions include the construction of a line from Shawinigan Jct. to Quebec, 80 miles, which will give the company an entrance into Quebec, independent of the Quebec and Lake St. John Ry.; a line from St. Jerome to Morin's Flats, to connect the old Montford and Gatineau line with the company's main line; and a line from Bout de l'Île to St. Jerome, which would permit of trains being run from Montreal to the terminal point of the old Montford and Gatineau Ry. It is also expected that track will be laid on the seven miles graded in 1904, between St. Epiphane and St. Jacques l'Achigan, at an early date. In Montreal the company has a site of 75 acres for terminal purposes, with a water front of 286 ft., and some negotiations have taken place with the Montreal Harbor Commissioners with the object of having a wharf erected there. (Mar., pg. 93.)

Halifax and Southwestern Ry.—The Provincial Engineer, in his report for 1904, dated Jan., 1905, states that the construction of the line from Halifax to Liverpool was pushed forward with considerable vigor. Tracklaying was completed from Mahone Bay to Halifax in Nov. On July 20, application was made to open the line from Mahone Bay to Chester for some special traffic. In company with the Dominion Government engineer and W. A. Hendry, C.E., of the Provincial staff, R. McColl, the Provincial Engineer, inspected the line and passed it for traffic at a slow rate of speed. The line was closed down immediately after the Chester regatta, in order to enable the company to complete the ballasting. There was considerable delay in this work, owing to the difficulty experienced in securing material sufficiently clean for ballast anywhere along the line. A feature of the road is the masonry, which is of massive cut granite of the finest quality, equal, if not superior, to any in the province. The steel bridges have all been completed and the station houses are either completed or under way. One lift of ballast has been put on throughout, and in some places a second lift has been put on, and will be completed as soon as the weather permits in the spring. Tracklaying was completed from Bridgewater to Liverpool in Nov., but too late to permit of much ballast being put on. The line was opened for passenger traffic, after



G. A. MOUNTAIN

Chief Engineer Board of Railway Commissioners.

tion with the Sydney and Louisburg Ry. near Sydney, N.S., we are informed, is in progress. T. Lancaster, the present Manager, is understood to be leaving for Colorado in the interests of those who control the property, and will be replaced as Manager at Sydney by — Thomas, who is coming out from England. (April, pg. 143.)

Fraser River Bridge.—A return presented to the British Columbia Legislature shows that the cost of the railway and general traffic bridge over the Fraser River at New Westminster was \$1,020,424.43.

(Continued on page 185.)

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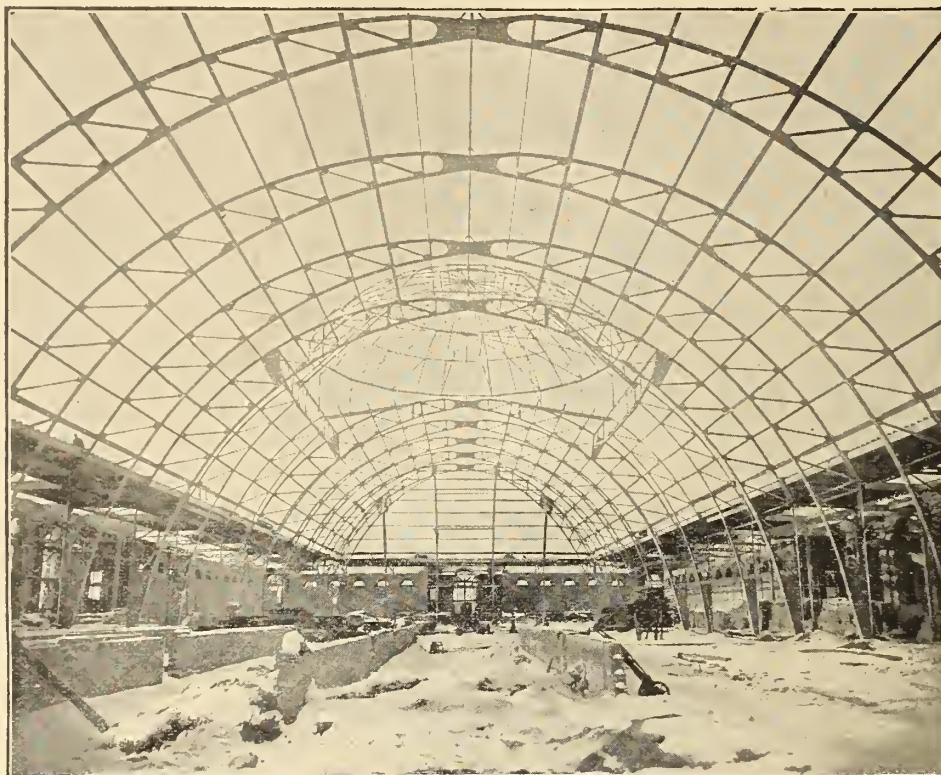
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RAILWAY DEVELOPMENT.

(Continued from page 181.)

inspection, in Jan. Trains are being run on the Caledonia branch three times a week, there not being traffic for a daily train. West of Liverpool the work has been delayed, owing to the difficulty of deciding on the most suitable location. The first line surveyed was from Bridgewater west, passed north of Mill Village, thence through Milton and down the west side of the Mersey River to Broad River, thence up Broad River and through the interior to Shelburne. A survey was made by the Department under the superintendence of W. A. Hendry, C.E., starting from the company's line a short distance west of Italy Cross, and running within $2\frac{1}{2}$ miles of Port Medway, thence through Brooklyn to Bristol, on the east side of the town of Liverpool. Later on, a survey was made by Mr. Hendry from Shelburne along the coast towards Liverpool, with the idea of diverting the line nearer the shore, to accommodate East Jordan, Lockport, Ragged Island Harbor, Sable River, Port L'Herbert, Granite Village, Port Joli and Port Mouton,—connecting with the company's survey and running from Broad River through Summerville, Hunts Point, and Whites Point to Liverpool. Notwithstanding the shore being so rocky and rugged, he succeeded in getting a very fair line, which would touch most of the points along the shore, and at the same time would neither increase the length or cost to any extent. The company adopted the general route of the Department's survey from Italy Cross to Liverpool, but extended its own location up the east side of the Mersey River, through Milton, and then across the river and through the interior to Tom Tidney River, and then down the Tom Tidney to Sable River, where it connected with the Department's survey along the shore to Shelburne. The plan of the line from Liverpool to Barrington was not submitted until Aug. 5. Immediately upon receipt of this, the portion from Sable River to Barrington was recommended for approval, but the other portion was disapproved, on the ground that the line along the shore would be more suitable to the public. Work was immediately started on the portion approved from Shelburne to Sable River, and has been vigorously prosecuted ever since. A further examination has since been made over the disputed line, and it is hoped, now that full information has been gathered regarding these routes, that the location will be settled shortly, so as to enable work to be pushed forward as soon as the weather permits. (April, pg. 143.)

James Bay Ry.—We are advised that at the end of March the grading had been well advanced between Parry Sound and Severn River, about 50 miles, and it was expected to commence tracklaying on that section at the end of April. From the Severn River to Brechin but little had been done, owing to some questions of location which are in process of settlement. The question involved is whether the line will run through Orillia or not, and in connection with its settlement, deputations have waited on both the Dominion and the Provincial Governments, urging the claims of the two routes. From Brechin to Richmond Hill the work is mostly light, and nothing was done during the winter, as it was more advantageous to go on with the rock work in the Don Valley. In the Don Valley below Richmond Hill, a considerable quantity of grading had been done. The contractors expected to have their men out on all parts of the line by the end of April. The section between Parry Sound and Washago is expected to be completed and the track to be laid by the end of June, and the Toronto-Washago section to be similarly completed by the end of August. Track is to be laid

from north to south, Angus Sinclair having the contract.

Plans have been approved by the Railway Commissioners for a bridge across Wallace Cut, at the north end of Janaks Island, Lake Muskoka, and for a bridge over the Severn River at the Ragged Rapids Crossing.

Some change has been made in the location of the line at the Parry Sound end. The new line will cross the Canada Atlantic Ry. by an overhead crossing, but the original line connecting with the C.A. Ry. at Quebec Siding will not be done away with. The foundation for the bridge over the Seguin River in Parry Sound has been completed. From Parry Sound north the grading on some six miles has been practically completed. This was done by Johnson and Beveridge, Parry Sound. As to the contract for the line to French River, no definite action was expected to be taken until the end of April. (Mar., pg. 93.)

Klondyke Mines Ry.—The Dawson, Grand Forks and Stewart River Ry., of London, Eng., has entered into a contract to construct 84 miles of line from Dawson City to the Stewart River. It was originally proposed to start the line at Klondyke City, and about two miles of track was reported to have been laid in 1903, from that point. Power was subsequently obtained to make the starting point of the line at Dawson. It is hoped to have the section from Dawson to Grand Forks completed this year.

Mabou and Gulf Ry.—No work was done on this line during 1904. The line extends from the mines to the shipping wharf at Mabou Harbor. Considerable work was done during the year at the wharf. The plans of the line from Dick's Point to the crossing of the Inverness and Richmond Ry. and Coal Co.'s line, have been submitted and approved. Plans have also been filed for the line from the crossing of the I. and R. Ry. and C. Co.'s line at $7\frac{1}{2}$ miles, to Orangedale on the I.C.R., but have not been approved pending an examination of the ground.

Minudie Coal and Ry. Co.—Plans, profiles and books of reference for this projected line have been submitted to the Provincial Engineer at Halifax. As however, the line shown crossed the Maccan and Joggins Ry. (the Canada Coals and Ry. Co.'s line), the company was notified that it must comply with the terms of the act requiring notice to be given to the company owning the line proposed to be crossed, before the plans could be approved. When these requirements have been complied with and the crossing settled, the plans will be recommended for approval.

The charter is owned by the Minudie Coal Co., the officers of which are:—President, Jas. Robinson; Vice President, L. Galivert; Secretary-Treasurer, G. A. Forbes, and the offices are in Montreal. The railway is under construction from River Herbert, on the Canada Coals and Ry. Co.'s line, to Minudie, 7 miles, where the collieries are, and from which the principal traffic will be drawn. The engineer is P. H. Smith, and the contractor for the grading and bridging is Wm. Sutherland. We are advised that a start was made in Nov., 1904, and some work was done at the cuts during the winter. It is hoped to have the grading completed by Sept., and the track laid by the end of the year.

Nova Scotia Eastern Ry.—The Provincial Engineer in his annual report states that the preliminary surveys for this line had been completed, a very good location having been secured. The plans and profiles had not been filed, but a general plan was filed by the company. This showed a line starting at Dartmouth, running along the shore through Cole Harbor, Lawrencetown and Chezzetcook, to within a short distance of Musquodoboit harbor, thence up the Mus-

quodoboit River, through Meagher's Grant, Little River and Middle Musquodoboit, to Upper Musquodoboit; thence across to Trafalgar and through Caledonia, following the west branch of the St. Mary's River to Melrose; thence to Country Harbor Cross Roads, and down the Salmon River to Guysboro, thence up Milford Haven and along the shore to the terminus at the Strait of Canso. The general plan also shows a branch from Melrose up the east branch of the St. Mary's River to New Glasgow, and another branch down from the Country Harbor River from Country Harbor Cross Roads to Country Harbor. A plan and profile of the location of a section of the line from Country Harbor Cross Roads to Country Harbor was filed and approved. Work was started on this portion of the line, but the operations were discontinued after a trifling amount of work had been done. A contract is reported to have been arranged in London, Eng., for the underwriting of the entire bond issue of the company, amounting to about \$5,000,000. J. W. Grier, of Montreal, left for England, April 5, to sign the papers.

Prince Edward Island Ry.—The work of M. J. Haney, contractor for the substructure of the bridge across the Hillsboro River, has been completed with the exception of some rip-rapping of the approaches, which is expected to be done by June 30. When we were last advised, four spans of the superstructure had been placed in position. (April, pg. 145.)

Prince Edward Island Tunnel.—A deputation waited on the Dominion Government at Ottawa, Mar. 31, on behalf of the residents of the Island, for the purpose of asking it to arrange for the construction of a tunnel under Northumberland Strait, at its narrowest point, between Cape Tormentine, N.B., and Cape Traverse, P.E.I., which at this point is about $7\frac{1}{2}$ miles wide. As an argument in favor of the project the deputation pointed out that during the recent winter the island was cut off from the mainland for 59 days at one stretch, whilst the condition of affairs two years ago was equally as bad. A proposition to construct a tunnel was made about eighteen years ago, and M. J. Butler, Assistant Engineer of the Transcontinental Railway Commission, was quoted as saying that there are sufficient data available to establish the feasibility of the tunnel proposition. It was also mentioned that M. J. Haney, the contractor, who built the substructure of the Hillsboro River bridge, had offered to construct a tunnel for \$10,000,000 and to complete the work in six years.

Quebec Central Ry.—The Company has completed a new steel bridge, replacing the wooden structure over the Chaudiere River near Beauce Junction on that line. The contract for the new bridge, including all materials and erection, was awarded to the Dominion Bridge Company. The bridge is a four span truss bridge of 520 feet over all.

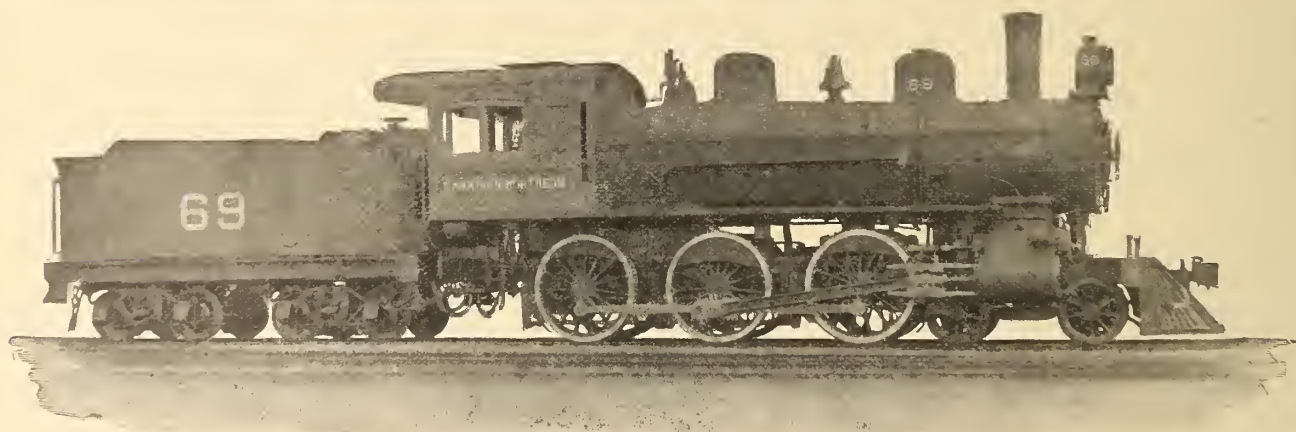
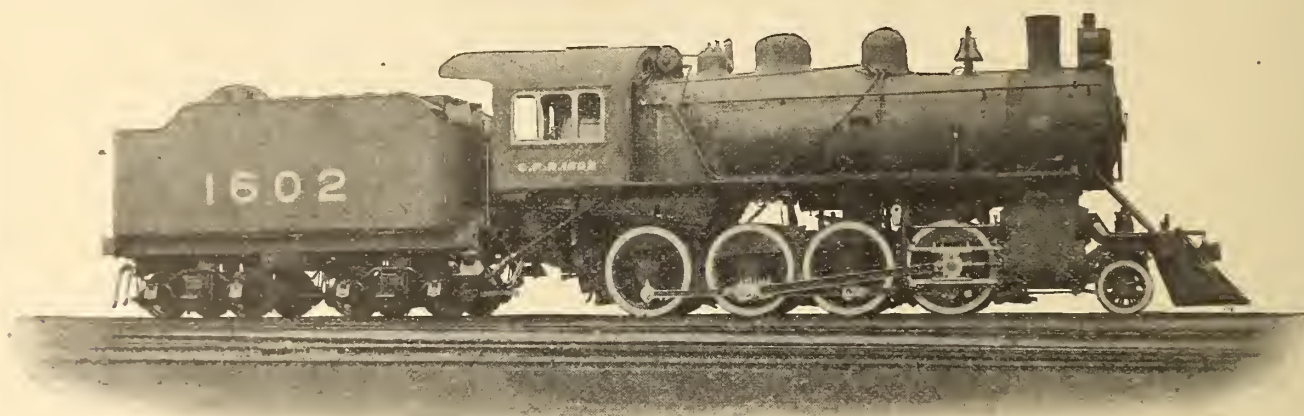
St. John Bridge and Ry. Extension Co.—The New Brunswick Legislature is being asked at its current session to pass an act authorizing the granting of a right of way 100 ft. wide through the grounds of the Provincial Hospital, St. John, for a nominal sum. This is being asked for as when the company was originally permitted to take the land the boundaries were not defined, neither was a crown grant made for the property.

Tillsonburg, Lake Erie and Pacific Ry.—Plans have been filed for a proposed extension of two miles at the Ingersoll end of the line. The company has powers to construct a line to Collingwood, either by Stratford or Berlin. D. McNichol, Vice President C.P.R., which has leased the line, and other officers of the C.P.R., inspected the terminals at Port Burwell, Ont., on Lake Erie, with a view of deciding on extensions, April 7.

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Eastern Canadian Passenger Association.

At a meeting held in Montreal April 4 the following lines were represented: Bay of Quinte Ry., Canada Atlantic Ry., Canadian Pacific Ry., Central Vermont Ry., Grand Trunk Ry., Great Northern Ry. of Canada, Intercolonial Ry., Kingston and Pembroke Ry., Lake Ontario and Bay of Quinte Steamboat Co., Muskoka Lakes Navigation and Hotel Co., New York and Ottawa Ry., New York Central Rd., Niagara Navigation Co., Northern Navigation Co., Ontario and Quebec Navigation Co., Ottawa River Navigation Co., Pembroke Navigation Co., Pere Marquette Rd., Quebec Central Ry., Quebec Southern Ry., Richelieu and Ontario Navigation Co., Rideau Lakes Navigation Co., Temiscouata Ry., Toronto, Hamilton and Buffalo Ry., Turbine Steamship Co., United States and Dominion Transportation Co., Wabash Rd. T. Henry, chairman pro tem, presided, C. E. Cleary acting as Secretary.

The minutes of the preliminary meeting, held Mar. 9, were approved. The meeting adjourned for an hour as a token of sympathy and respect for W. Wainwright, and his family, owing to the death of Mrs. Wainwright.

The executive committee reported that instead of appointing a chairman as the salaried executive officer of the Association, a competent salaried secretary be appointed for the present, that the chairman's position be honorary, and that he be elected annually from the Association. The articles of Association were amended accordingly, and adopted.

The committee on rules reported progress and were requested to complete their report and present it at a special meeting of the Association in Toronto May 9. The general baggage agents' report as to fundamental baggage rules was referred to the committee on rules. The articles of Association will be presented for signature at the Toronto meeting.

T. Henry, Traffic Manager Richelieu and Ontario Navigation Co., was elected chairman for the year by acclamation. J. H. Walsh, G.P.A. Quebec Central Ry., was elected on the executive committee to succeed Mr. Henry. The appointment of a secretary was referred to the executive committee.

A number of reduced fares for special events were agreed to. Among others for Victoria Day, May 24, lowest one way 1st class fare for round trip, good going May 23 and 24, to return May 25, and for Dominion Day, July 1, same fare, good going June 30, July 1, 2 and 3, to return July 4. The sale of Saturday to Monday excursion tickets will hereafter commence on the 1st Saturday or Sunday in May, instead of, as formerly, on the first Saturday or Sunday in June.

The executive committee has since appointed G. W. Webster, Assistant to the General Freight and Passenger Agent of the Canada Atlantic Railway, as Secretary of the Association, with office at 54 Beaver Hall Hill, Montreal.

Following are the leading features of the articles of organization:

The lines signing the articles agree to organize the Eastern Canadian Passenger Association, embracing the territory in Canada east of and including Port Arthur, Sault Ste. Marie, and the St. Clair and Detroit Rivers. All steam transportation lines and electric transportation lines having traffic relations with such steam transportation lines, within the territory above mentioned, may be admitted to membership in the association by consent of lines already members, upon signing the articles of organization. The purposes of the organization are to promptly secure to each of the parties authentic information in relation to tariffs, rate sheets, and ticket regulations of the respective par-

ties and changes therein, and the due filing and publication thereof; to aid in securing compliance with the laws relating to and regulating commerce; and to enable the parties hereto to mutually confer, advise and act in relation to the subjects above stated, and the proper methods to secure the purposes aforesaid. The officers shall be a chairman, an executive committee of three, and a secretary. The executive committee shall be elected by ballot, and annually hereafter at the January meeting, or, in case of failure to elect at that time, at the next regular meeting. Vacancies through removal, death, or resignation, shall be filled by the Chairman until the next meeting of the association. The executive committee shall appoint a secretary who shall perform such duties as may be assigned to him. He shall represent the association in its negotiations with other associations. The Chairman shall construe the articles of organization and all resolutions adopted thereunder. The secretary shall be responsible for all money received and disbursed by him in conducting the business of the association, and shall be bonded in a surety company, and for an amount satisfactory to the executive committee. The executive committee shall supervise the expenses of the association, consider all questions that may be referred to them by the association and report its recommendation. Each line party hereto shall fix and determine its own reduced fares, and shall file with the secretary all its rate sheets, circulars, rules and regulations, pertaining to passenger traffic within the purview of this association; and the secretary, as agent of each individual line, shall disseminate such information as may be necessary to the parties hereto. Nothing in the articles of organization shall be construed as giving authority to the secretary, or to the association, or to any person or officer of the association, to fix or determine any rate for any party hereto, but each party alone shall fix and determine its own rates; and nothing herein shall be construed as preventing any party hereto after it has fixed such rates from changing the same from time to time, as it may elect. Each line party hereto, reserving always to itself the right to take independent action, agrees that, should it decide to change its reduced fares, it will file with the secretary a written and specific notice of the action it intends to take, at least five days before same shall take effect, such notice of intention to be so filed with the secretary before any line party hereto announces, advertises or participates in any such changed rates. All decisions and rulings of the Chairman shall be observed until reversed by a majority vote of interested lines. When appeal is taken from the Chairman's decision, or failure to decide, it must be decided by a majority vote of the lines interested, such appeal to be final. All such appeals must be made within ten days from the date of the action complained of; when the appeal is because of failure of Chairman to decide, it shall be made within ten days from date question is presented to him for decision. When an appeal is taken to the association, it shall be the duty of the Chairman to convene the interested lines within ten days from receipt of appeal, unless the appellant assents to have it considered at the next regular meeting of the association. Regular meetings of the association shall be held at Montreal on the Tuesday after the first Monday in January, April, July and October. All members of the association shall be entitled to vote on general matters, but in matters of policy, affecting material interests, any member may have the right to call for vote by lines. In such cases only one vote by any one line shall be cast. On general questions each line shall have but one vote, provided that on all special questions only lines directly interested in the

issue shall be allowed to vote. The Chairman shall decide what lines are directly interested in such questions. No resolution shall be declared adopted unless it shall have received the affirmative votes of not less than two-thirds of the lines represented at any meeting of the association. When a vote by lines is asked for on any proposition, every voting line present shall vote either for or against it, unless excused by the Chairman before voting begins, and the proxies held by the Chairman shall be accorded as directed by him. The expenses of the association shall be divided among the lines parties hereto, on an equitable basis as may be determined from time to time; the minimum annual proportion of each line to be \$25. Assessments to be made and collected by the secretary. The articles of association to continue for one year or until dissolved by a majority vote of lines parties hereto, but any line may withdraw therefrom after expiration of said year by giving 30 days' prior notice in writing to the Chairman provided such notice takes effect on the first day of a calendar month, and provided that all assessments against such lines are fully paid. The withdrawal of any line shall not dissolve the association except by consent of a majority of the remaining lines.

G.T.R. SEMI-ANNUAL MEETING.

At the semi-annual meeting in London, Eng., April 13, the following report was presented for the half-year ended Dec. 31, 1904. The following summary shows a comparison of the half-year's revenue account with that of the corresponding half-year, ended Dec. 31, 1903:—

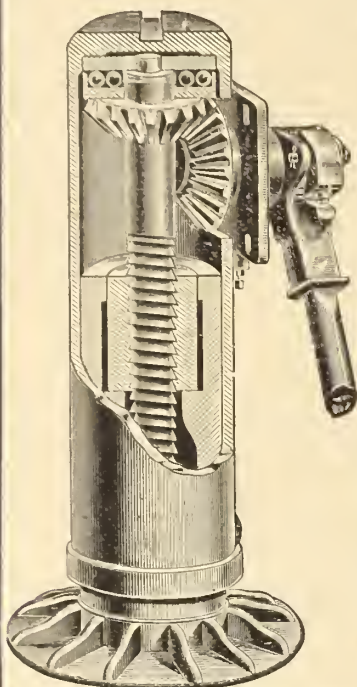
Dec. 31, 1903.		Dec. 31, 1904.
£3,138,468	Gross receipts.....	£3,129,814 6 7
2,214,084	Working expenses, being at the rate of 70.45% as compared with 70.55% in 1903.	2,205,091 8 7
924,384	Net traffic receipts.....	924,722 18 0
	Add—	
12,931	Amount received from International Bridge Co.....	12,930 12 9
404	Interest on Toledo, Saginaw, and Muskegon bonds.	1,677 3 0
6,507	Interest on bonds of Central Vermont Ry.....	6,506 14 3
61,865	Interest on securities of controlled lines and on St. Clair tunnel bonds acquired by the issue of Grand Trunk 4% debenture stock	61,855 16 0
7,164	Balance of general interest account.....	23,760 4 8
£1,013,255	Net revenue receipts.....	£1,031,453 8 8

Following are the net revenue charges for the half-year, compared with the corresponding period:

Dec. 31, 1903.		Dec. 31, 1904.
£ 77,603	Rents (leased lines).....	£ 77,603 0 9
488,721	Interest on debenture stocks and bonds of the Co.....	488,733 9 10
48,550	Interest on debenture stock and bonds of lines consolidated with the G.T.R.	47,589 11 3
614,874		613,926 1 10
464	Deduct—Detroit, Grand Haven and Milwaukee surplus.....	14,575 19 3
614,410		599,350 2 7
398,845	Leaving a surplus of.....	432,103 6 1
£1,013,255		£1,031,453 8 8

Adding the balance of £1,363 38. 11d. at the credit of net revenue account June 30, 1904, to the above surplus for the past half year, the total amount available for dividend is £1,366 10s. 0d., from which the direct-

Why The Norton Ball-Bearing Jack Is Better Than Any Other.



Sectional View of Norton Jack.

THE BALL-BEARINGS

reduce the friction and increase the power of the Jack.

THE GEARS

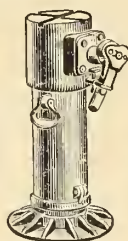
are cut from solid steel forgings, thereby giving highest efficiency and greatest durability.

THE SCREW

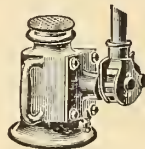
runs in a Phosphor Bronze Nut and is covered by a sliding sleeve which takes all the side strain, prevents the Screw from bending, and protects the working parts from Grit and Rust.



Foot-Lift Jack.



35 Ton Jack.



Journal Jack.

Made in 50 styles—8 to 70 tons capacity.

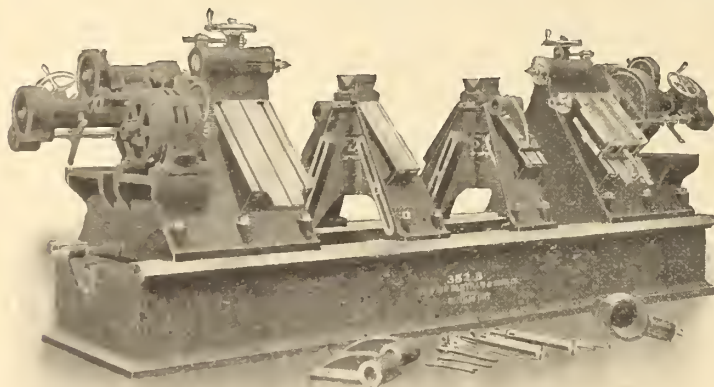
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W. H. C. MUSSEN & CO., Montreal.

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*With Outboard Support for Boring Spindles
and Removable Rest for Turn-
ing Crank Pins.*

This 90° Quartering Machine is designed for quartering and boring crank pin holes in locomotive driving wheels having right hand lead and wheels having left hand lead up to 85" in diameter on the tread. The boring spindles have 15" travel and two changes of power and rapid hand movement. The saddles are graduated and have angular adjustment for any length of stroke from 12" to 36". The axles are held on their centres and supported by adjustable V bearings, the wheels being clamped to the side of the frame. Each head is arranged to be driven by a 5 H.P. electric motor.

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Dundas, Ontario, Canada

H. S. BURKHARDT, Pres.
E. B. LEICH,
Vice-Pres. & Gen. Mgr.

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CHICAGO, . . ILLINOIS

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Works :—CHICAGO, DETROIT, JERSEY CITY, MONTREAL.

CANADIAN OFFICE :

22 St. John Street
MONTREAL, - QUEBEC

I. A. YOUNG,
AGENT

ors recommend the payment of the following dividends, viz.:

For the half-year on the 4% guaranteed stock	£1,32,586	5	10
5% for the year on the first preference stock	170,841	10	0
5% for the year on the second preference stock	126,420	0	8
	£429,847	16	6

leaving £6,618 13s. 6d. to be carried forward to next half-year's account.

Following table exhibits a comparison of the receipts for the half-years ending Dec. 31, 1904 and 1903.

Description of Receipts.	1904.		1903.		Increase.		Decrease.	
	£	s.	£	s.	£	s.	£	s.
Passengers	991,484		935,240		56,244		2,779	
Mails and express	155,777		158,586				68,810	
Freight and live stock	1,996,146		1,971,955		24,191			
Miscellaneous	76,468		72,767		3,701			
	£3,129,814		£3,138,468				£8,654	

TRAFFIC STATISTICS.

Description of Receipts.	1904.		1903.		Increase.		Decrease.	
	£	s.	£	s.	£	s.	£	s.
Passengers carried	5,493,680		5,139,073		354,607			
Average fare per passenger	3s. 9d.		3s. 7d.		1d.			
Tons of freight and live stock	7,043,376		6,738,702		304,674			
Average rate per ton	5s. 3d.		5s. 10d.				5d.	
Tons carried one mile	1,329,229,304		1,406,765,548				77,536,244	
Earnings per train mile	78.75d.		77.77d.		0.98d.			

The average rate per ton per mile on the entire freight business was 0.70 of a cent, compared with 0.68 of a cent in the corresponding half-year.

The working expenses, excluding taxes, amounted in the half-year to £2,154,379, or 68.83% of the gross receipts, as compared with £2,175,214, or 69.31% in the corresponding half-year; a decrease in amount of £20,835, and in the proportion to the gross receipts of 0.48%.

The following table exhibits a comparison of the revenue expenditure, including taxes, for the half-years ended Dec. 31, 1904, and 1903:

Description of Expenditure.	1904.		1903.		Increase.		Decrease.	
	£	s.	£	s.	£	s.	£	s.
Maintenance of way, and structures	581,040		557,688		23,352		3,716	
Maintenance of equipment	359,186		362,905				38,765	
Conducting transportation	1,146,967		1,185,332				1,712	
General expenses	67,577		69,289				1,712	
Taxes	50,712		58,870				11,842	
Total	£2,205,001		£2,214,084				£8,993	
Percentage of gross receipts	70.45		70.55		0.10			
Expenditure per train-mile	55.48d.		54.86d.		0.62d.			

The train mileage of the half-year compares with that for the half-year ended Dec. 31, 1903, as follows:

Description of Mileage.	1904.		1903.		Increase.		Decrease.	
	£	s.	£	s.	£	s.	£	s.
Passenger	4,187,085		3,938,103		248,982		326,189	
Freight	5,028,243		5,354,432				70,476	
Mixed trains	322,257		392,736				70,476	
Total	9,537,585		9,685,271				147,686	

From the foregoing statements it will be observed that the G.T.R. gross receipts for the half-year show a decrease of £8,654, or 0.28%; the working expenses, including taxes, a decrease of £8,993, or 0.41%; and the train mileage a decrease of 146,786, or 1.52%.

There has been a decrease of 26 miles in the length of lines worked, caused by the leasing of 13.22 miles of the Beauharnois Branch to the St. Lawrence and Adirondack Co., and the transfer to sidings of the Toronto Belt Line, 12.79 miles, Flos Tramway, 8.28 miles, and the Wharf Branch at Montreal 4.29 miles, less increased mileage owing to sundry adjustments.

The total charges to the capital account for the half-year were £239,692 3s. 5d. Of this, £400 was in respect of a similar amount of G.T. Junction 1901 bonds acquired during the half-year, £250 for additional 4% debenture stock issued on the exchange of £1,000 Northern Railway third preference bonds, and £41 7s. 7d. commission paid on account of 4% guaranteed stock issued during the preceding half-year.

The actual expenditure on capital account was as follows:—

New works	£ 65,107	10	1
Double track	153,311	8	11
Land purchased	20,581	16	10
	£239,000	15	10

No additions to rolling stock at the expense of capital have been made during the half-year. Twenty-eight freight locomotives and 150 refrigerator cars have been built in the company's shops, and 5 passenger engines, 2 dining, 4 parlor café, 6 first-class, 3 baggage and second-class, and 10 baggage cars were purchased during the half-year on revenue account. There is an apparent deficiency of 409 freight cars, but owing to the larger and more expensive description of cars constructed during recent years, the carrying capacity of the cars in service has been increased by 129,633 tons, the equivalent of 5,064 cars of the present average capacity.

The doubling of the line between Hamilton and Sarnia has been completed from Hamilton to Lynden (14 miles), Brantford to Paris (7.80 miles), and Paris to London (47.29) miles during the past half-year, and the double track between those places is now in use for traffic. It has been decided to continue the doubling of the line on this division, and instructions have been given to proceed with the work between Kingscourt Junction and Komoka (27.43 miles) during the current year. On the completion of this section of the line, there will only remain about 30 miles of single track between Montreal and Chicago via Hamilton, a distance of 845 miles.

The gross receipts of the G.T. Western Ry. Co. for the half-year were £522,280, against £580,684 in 1903, a decrease of £58,404, and the working expenses were £444,173, against £498,571, a decrease of £54,398, leaving a net profit of £78,107, against £82,113, a decrease of £4,006, compared with the corresponding period of 1903. The net revenue charges for the half-year were £82,744 against £79,922, so that there was, on Dec. 31, a net revenue debit of £4,637, which amount is carried forward, as compared with a net revenue credit of £2,191 for the corresponding half-year of 1903. The number of passengers carried during the half-year was 868,989, against 871,338, a decrease of 0.61%; and the passenger train receipts, including mails and express receipts, were £181,987, against £174,536, an increase of 4.27%. The quantity of freight moved during the half-year was 1,353,515, against 1,396,552 tons, a decrease of 3.08%, and the receipts from this traffic were £339,531, against £405,637, a decrease of 16.30%.

The gross receipts of the Detroit, Grand Haven and Milwaukee Ry., for the half-year were £160,915, against £142,283 in 1903, an increase of £18,632; the working expenses were £109,364, against £104,948, an increase of £4,416, thus leaving a balance of £51,551, against £37,335, and showing an increase in net revenue of £14,216, compared with the corresponding half-year of 1903. The net revenue charges for the half-year were £36,975, against £36,871 in 1903, so that there was a net revenue surplus of £14,576, as compared with £464 for the corresponding period of 1903. The number of passengers carried during the half-year was 415,333, against 399,302, an increase of 4.01%; and the passenger receipts, including mails and express receipts, were £62,070, against £64,316, a decrease of 3.49%. The quantity of freight moved was 669,853 tons, against 470,601 tons in 1903, an increase of 42.34%; and the receipts from freight traffic were £95,970, against £76,417 in 1903, an increase of 25.59%.

The directors express their deep regret at the recent loss, through death, of their late colleague, Jos. Price, who for many years occupied the position of Vice-President. A resolution will be submitted to the meeting authorizing the reduction of the number of the directors to ten. A London committee of the G.T. Pacific Ry. Co., consisting of members of the board of the Grand Trunk Railway, has been constituted to administer the affairs of that company in England, and under the by-laws of that company will receive as remuneration for their services £2,000 per annum. The retiring directors are Sir C. Rivers Wilson and J. A. Clutton-Brock, who are eligible and offer themselves for re-election. H. C. Newton, one of the auditors in London, and W. M. Ramsay, one of the auditors in Canada, also retire and offer themselves for re-election.

REPORTS OF OFFICIALS.

The Chief Engineer, after referring to the reduction in mileage and the progress of the second track work mentioned in the directors' report, reported that the expenditure during 1904 for maintenance of way and structures was \$4,027,758.60, against \$4,067,082.56 in 1903. The amount spent on the track or permanent way, for repairs of roadway, ballasting and ballast, clearing snow, renewals of rails and ties, including their proportion of the cost of superintendence, was \$2,572,061.18 in 1904, being at the rate of \$727.39 per mile; in 1903 the amount was \$2,243,207.82, or at the rate of \$629.76 per mile. The replacement of old obsolete iron bridges by steel structures is still in progress. New stations have been built at Coatocook, Danby, Bulstrode, St. Enlalie, Moulinette, Farran's Point, Kimmount, Ux bridge, Allandale, Nipissing Junction, Corson's, Brentwood, Perch, Beachville, Brantford, Hickson, Chesley, Warton, Blyth, Glencoe, Welland Junction, and Bridgeburg—22 stations in all.

The materials used for renewals and repairs of main tracks and sidings were: New steel rails laid in track, 23,919 tons; partially-worn steel rails laid in branch lines and sidings, 26,188 tons; new ties placed in track, 1,333,921; ballast, 435,081 cubic yards.

The Superintendent of Motive Power reported expenditure, mileage, etc., as follows:

Half-year ended.	Total Expenditure.	Train Mileage.	Rate of Expenses per Mile.		
			Train	Engine	Car.
	Dollars.		Cents	Cents	Cents
Dec. 31, 1904	3,707,044	9,538,485	38.86	30.04	2.44
Dec. 31, 1903	3,840,737	9,685,271	39.66	30.81	2.37

A decrease in expenditure of \$133,693.00,

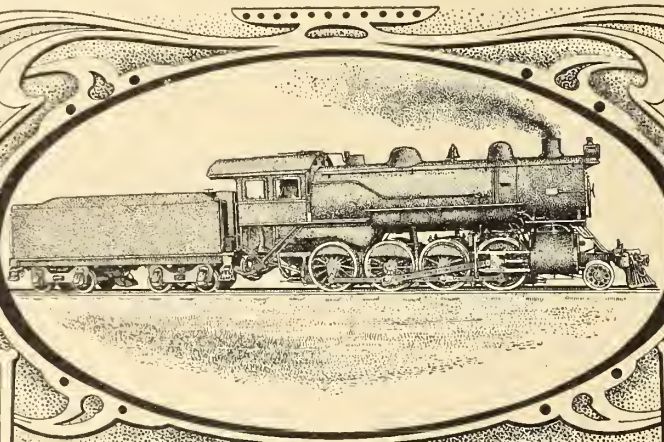
(Continued on page 191.)

Toronto Transportation Club.—On the invitation of W. B. Bamford, Travelling Freight Agent C.P.R., some 25 travelling freight agents, etc., with headquarters at Toronto, met there April 14, to discuss the formation of a transportation association or club. Mr. Bamford presided, P. K. Perry, of the Canadian Freight Association's office, acting as secretary. W. B. Bamford, J. A. Sutherland, Contracting Freight Agent New York Central Rd., G. M. Thomas, Travelling Agent Intercolonial Ry., and G. Barnes, Soliciting Freight Agent G.T.R., were appointed a committee to draft a constitution, etc., to be presented at an adjourned meeting on May 5.

The International Railway Congress, the business sessions of which will be held at Washington, D.C., will open May 4, and will conclude May 13, after which there will be a series of tours arranged for the foreign delegates. The delegates will include the following from Canada: C.P.R.—Sir T. G. Shlaughtnessy, President; W. Whyte, Second Vice-President; I. G. Ogden, Third Vice-President; G. M. Bosworth, Fourth Vice-President; W. F. Tye, Chief Engineer; H.

H. Vaughan, Superintendent of Motive Power; W. E. Fowler, Master Car Builder. G.T.R.—C. M. Hays, Second Vice-President and General Manager; E. H. Fitzhugh, Third Vice-President; F. H. McGuigan, Fourth Vice-President; W. D. Robb, Superintendent of Motive Power, and W. McWood, Superintendent of Car Department.

The U.S. Congress has passed an act providing for the award of a bronze medal to any persons who, by extreme daring, endanger their own lives in saving or endeavoring to save life from any wreck, disaster or grave accident, or in preventing or endeavoring to prevent such wreck or accident. The Department of Marine at Ottawa at present votes some recognition to mariners for life saving, and the Canadian Humane Society, of which H. P. Dwight, President G.N.W. Telegraph Co., is President, makes awards for other gallant acts, but the recognition given by these two means does not cover all the gallant deeds done. The passing of an act by the Dominion Parliament similar to that now passed in the U.S., would be the means of providing a proper recognition of heroic deeds of whatever kind performed in Canada.



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**"LEATHER LIKE
GOLD HAS NO
SUBSTITUTE"**

G.T.R. SEMI-ANNUAL MEETING.

(Continued from page 189.)

or 3.48% compared with a decrease in train miles of 146,786, or 1.52%.

	Passenger Trains	Freight Trains	Mixed Trains
The average number of cars moved per train was.....	4.6	25.9	8.2
And for the corresponding period.....	4.6	26.2	8.6

The comparative cost of repairs per train, engine and car mile was:

Cost per Mile.	Repairs and renewals of Locomotives.				All repairing charges, including shop machinery, tools, and marine equipment, etc.			
	1904.		1903.		1904.		1903.	
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
Train.....	7.51	7.83	6.12	6.65	10.13	8.96	8.96	8.96
Engine.....	5.80	5.80	4.75	6.65	7.83	6.65	6.65	6.65
Car.....	0.47	0.51	0.37	0.51	0.63	0.51	0.51	0.51

The car expenditure, mileage, etc., was as follows:

Total Cost of repairs and re-novels.	Total Miles run by Cars.				Cost per Mile.	
	Passenger.	Freight.	Total.		Car.	Train.
	Dollars.	Dollars.	Dollars.		Cents.	Cents.
Half-year ended.....	20,067,215	132,159,481	152,226,696		0.574	8.20
Dec., 1904.....	18,976,642	142,982,900	161,959,542		0.578	9.68
" 1903.....	937,097					

The Superintendent of the Car Department showed a decrease of \$155,318, or 16.57% in the cost of repairs to cars, with a decrease in car mileage of 9,732,846 miles, or 6.01%. The car statistics show that 150 refrigerator cars were built new, one coal car was rebuilt at the company's shops at cost of revenue. In addition two dining cars, four parlor café cars, six first-class cars, three baggage and second-class cars, and 10 baggage cars were purchased and charged to revenue.

The revenue account for the half-year is as follows:

RECEIPTS.	£	s.	d.	£	s.	d.	£	s.	d.
	997,041	11	10	5,557	2	6	1,083,863	17	9
Passengers.....	1,360	6	10	53,109	6	5	11,733	12	8
Less—	4,196	15	8	14,847	10	8			
International bridge tolls.....									
St. Clair tunnel tolls.....									
Mails and express.....									
Freight and live stock.....									
Less—									
Cartage, etc.....									
International bridge tolls.....									
St. Clair tunnel tolls.....									
Miscellaneous receipts, rents, tolls, etc.....									

EXPENDITURE.

	£	s.	d.
Maintenance of way and structures.....	18.57	581,046	5 9
Maintenance of equipment.....	11.47	359,189	6 9
Conducting transportation.....	36.63	1,146,566	18 10
General expenses.....	2.16	67,576	10 5
Total working expenses.....	68.83	2,154,379	1 9
Taxes.....	1.62	50,712	6 10
	70.45	2,205,091	8 7

Balance to net revenue account.....	924,722	18 0
	£3,129,814	6 7

Telegraphic reports of the meeting state that in moving the adoption of the report Sir Rivers Wilson referred feelingly to the great loss the company had sustained by the death of Jos. Price. He referred among other matters to the report of the Ontario Commission, which had been looking into the question of the taxation of railways, and stated that the company was determined to fight any attempt by the Ontario Government to increase the taxes levied upon railways. He thought it was most unfair treatment on the part of Ontario, as the G.T.R. had done so much for the province. During the discussion at the conclusion of the chairman's address, a shareholder asked what route the G.T. Pacific Ry. would take over the Rocky Mountains. The President replied that there were many who would like to know that, and that General Manager Hays, when travelling about to pick out the route, was followed by company promoters and others anxious to learn the route. Replying to further questions about the G.T. Pacific Ry., the President stated that it was expected that the construction of the Lake Superior branch would commence in June, and the building of the prairie branch in July. In connection with the G.T. Pacific Ry. the President congratulated the stockholders on the financial association of the Rothschilds with the G.T.R. in connection with the flotation of the G.T.P.R. bonds.

Another shareholder drew attention to a statement contained in a Canadian newspaper which said that John Pullen, an officer of the G.T.R., had stated that over \$2,000,000 had been paid out in claims the past year. The President, replying, said that the statement had appeared in an obscure newspaper which he had never heard of before. Mr. Pullen had been misreported, as no such amount had ever been paid in claims.

The report and statement of accounts were adopted, and the dividends recommended therein declared.

The resolution reducing the number of directors to ten was passed, and the retiring directors and auditors were re-elected.

At the Canadian Railway Club's monthly meeting in Montreal April 1, W. N. Dietrich, Electrical Engineer C.P.R., read a paper on Electric Power as applied to railway shops.

The bill proposing to provide better protection at railway crossings, introduced by E. A. Lancaster, which was rejected by the Railway Committee, was subsequently brought before the House of Commons by its promoter, and after a discussion, was defeated by 42 votes to 12.

The Toronto Globe recently stated that "George Stanley, dining car conductor on the G.T.R. on the run between North Bay and Toronto, has been appointed Superintendent of dining cars on the Central Vermont Ry., with headquarters at St. Albans." We are advised that no such appointment has been made, and that the C.V. management does not contemplate appointing a superintendent of dining cars. We are also advised that no one of the name of George Stanley has been employed as a dining car conductor on the G.T.R.

TRANSPORTATION APPOINTMENTS.

Canadian Pacific Ry.—H. L. Jordan has been appointed Division Engineer of Construction at Montreal, vice F. S. Darling, who has been appointed Division Engineer of Construction at Toronto. Mr. Jordan will have charge of such work as is assigned him by the Chief Engineer.

A. E. Lalonde, heretofore acting city passenger agent at Montreal, has been appointed city passenger agent there.

F. R. Perry, heretofore Acting District Passenger Agent at St. John, N.B., has been appointed District Passenger Agent there.

Cape Breton Electric Ry.—A. F. Townsend has been appointed General Superintendent, Office, Sydney, N.S.

Esquimalt and Nanaimo Ry.—The operations of the line did not pass to the C.P.R. on April 1, as was arranged, consequently there were no changes in the operating staff such as had been anticipated.

Grand Trunk Ry.—W. Holmes having resigned, the office of Trainmaster at Island Pond has been abolished. Reports heretofore made to the Trainmaster will be sent to C. L. Mayne, Assistant Superintendent, Island Pond.

T. L. Grabill has been appointed Baggage Master, Bonaventure Station, Montreal, succeeding F. W. Gieselman, who has returned to the United States.

The following agents have been appointed:—Cannington, Ont., R. H. Jones (relieving); Chesley, Ont., J. T. Rose; Paisley, Ont., J. Clancy.

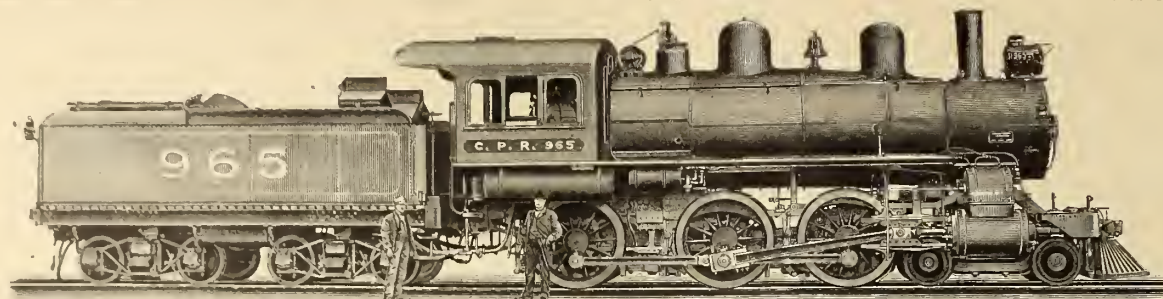
Grand Trunk Western Ry.—K. M. Landis, Attorney at Chicago, having resigned to accept the appointment of Judge of the U. S. District Court, Kretzinger, Gallagher, Rooney & Rogers, Monadnock Block, Chicago, have been appointed Attorneys for the States of Indiana and Illinois, and will have entire charge of the legal affairs of the company therein. This amends the general circular entitled "Handling of Legal Documents" so far as applies to the States of Indiana and Illinois, and all notices, writs, and legal process of any nature served upon agents or employees in above territory, must be sent to that firm at its address in Chicago.

Michigan Central Rd.—W. H. Underwood, heretofore General Eastern Passenger Agent at Buffalo, N.Y., has been appointed Assistant General Passenger Agent, with headquarters at Chicago, vice G. E. King, resigned.

The position of General Eastern Passenger Agent having been abolished, J. W. Daly, heretofore General Eastern Passenger Agent of the Lake Shore and Michigan Southern Ry., at Buffalo, has been appointed Chief Assistant General Passenger Agent of both the Lake Shore and the Michigan Southern Ry. and the Michigan Central Rd., with headquarters in the Fidelity Building, Buffalo. A. P. Blasier, Travelling Passenger Agent M.C.R., and C. H. Chieve, Travelling Passenger Agent L.S. & M. S.R., will report to Mr. Daly.

H. A. Worcester, heretofore Superintendent Western Division Lake Shore and Michigan Southern Rd., Chicago, Ill., has been appointed Assistant General Superintendent Michigan Central Rd. with headquarters at Detroit, Mich. He will have special charge of all train movements, station and telegraph service, and in addition will perform such other duties as may be assigned him by the General Superintendent.

New York and Ottawa Ry.—The officials of the N.Y. and O. Ry., which includes the Ottawa and New York Ry., extending from Ottawa, Ont., to Timper Lake, N.Y., for the current year are: President, W. H. Newman; Vice Presidents, E. V. H. Rossiter, W. C. Brown, J. Carstensen, W. J. Wilgus,

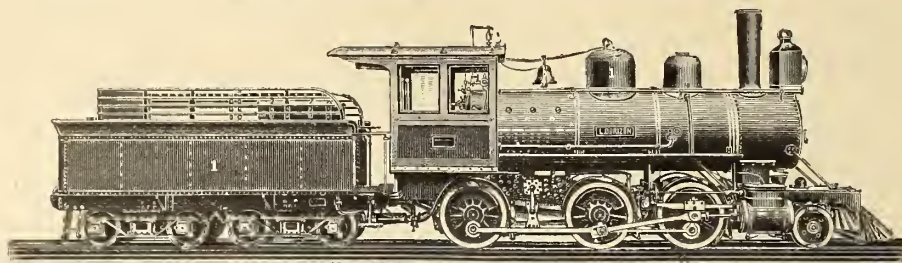


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CHEMNITZ (Germany),

Carry on the construction of **LOCOMOTIVES** of every description.

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Workmen,
5,200.



Capital,
\$3,000,000.

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FRIED. KRUPP, ESSEN, GERMANY.

Steel Rails.

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New York Office, Broad Exchange Building. Chicago Office, Monadnock Block. St. Louis Office, Frisco Building.

The General Railway Signal Company has acquired the American assets and properties of the Taylor Signal Company, of Buffalo, N. Y., and of the Pneumatic Signal Company, of Rochester, N. Y., and is prepared to furnish and install approved forms of mechanical, pneumatic, electro-pneumatic and electric interlocking devices, track circuit appliances, motor signals, railway gates, etc.

JAMES PLAYFAIR, Pres. & Gen'l Mgr.

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General Attorney, I. F. Place; General Superintendent of Motive Power, Equipment and Rolling Stock, J. F. Deems; General Auditor, M. L. Bacon; Auditor Passenger Accounts, J. L. Faircomb; Auditor Freight Accounts, W. T. McCulloch, of New York; General Manager, H. W. Gays; General Freight and Passenger Agent, G. H. Phillips; Assistant General Passenger Agent, H. K. Gays; Master Mechanic, M. Gooderich; Roadmaster, M. Keefe, of Ottawa.

Northern Pacific Ry.—F. Cameron has been appointed contracting freight agent. Office, Winnipeg, Man.

Orford Mountain Ry.—R. K. Harris has been appointed Chief Engineer, succeeding the late H. C. Cleveland. Office, Kingsbury, Que.

Pere Marquette Rd.—W. C. Greoning has been appointed Superintendent of the company's shops at St. Thomas, succeeding J. T. Stafford, appointed Assistant Master Mechanic at Grand Rapids, Mich.

Temiskaming and Northern Ontario Ry.—G. A. McCarthy, heretofore Assistant Engineer, Toronto, Niagara Falls Power Co., has been appointed Engineer of Way, T. and N. O. Ry. He will have charge of the completed portion of the line from North Bay to New Liskeard, Ont. Office, North Bay.

Toronto Ry.—Ewen Mackenzie, Assistant Superintendent and Purchasing Agent, has resigned.

A. M. Grantham has been appointed Purchasing Agent.

J. H. Donnelly, of Indianapolis, Ind., has been appointed Master Mechanic, succeeding A. M. Smith, resigned.

MAINLY ABOUT PEOPLE.

Lord Stratheona has returned to England after a short stay in Canada.

T. H. Wickes, Vice-President of the Pullman Co., died at Chicago, Ill., Mar. 28.

W. Cooke, C.P.R. ticket agent at Fort Steele, B.C., was drowned there April 17, while out duck shooting.

Mrs. Bell, wife of John Bell, K.C., Consulting General Counsel for the G.T.R., died at Belleville, Ont., April 18.

A. E. Trites, Salisbury, N.B., has secured a contract on the extension of the Bangor and Aroostook Ry. to Seaport, Me.

F. Tutton, who died in Toronto April 8, was a son of the late F. Tutton, first Superintendent of the Kingston Locomotive Works.

W. Whyte, Second Vice-President C.P.R., is about to erect a residence at the corner of River Ave. and Llewellyn St., Winnipeg.

W. H. Davis, a member of the firm of Wm. Davis and Sons, contractors for railway and canal works, died at Montreal Mar. 23, aged 54.

Miss Ada McNicholl, second daughter of D. McNicholl, Vice-President C.P.R., died in Montreal, April 16, after an illness of some months.

Mrs. W. R. MacInnes, wife of the Freight Traffic Manager C.P.R., sailed on the str. Manitoba, from St. John, N.B., April 29, for England.

W. Duthie, representing the Great Lakes and St. Lawrence Transportation Co., has been elected a member of the Montreal Board of Trade.

F. H. Chrysler, K.C., Ottawa, has been appointed counsel to the House of Commons special committee, which is investigating the telephone question.

Jas. Mills, of the Board of Railway Commissioners, left Ottawa for Clifton Springs, N.Y., April 19, to recuperate after a somewhat serious illness.

J. A. Stone, G.T.R. agent, was entertained at dinner recently by the business men of Ridgeway, Ont., on his transfer from that place to Dunnville, Ont.

J. X. Perrault, one of the Secretaries of the Transportation Commission, of which the late Jno. Bertram, of Toronto, was chairman, died at Montreal, April 7.

A. P. Cockburn, Manager and Secretary Muskoka Lakes Navigation and Hotel Co., is publishing a book under the title of "The Political Annals of Canada."

W. Downie, General Superintendent C.P.R., Atlantic Division, left St. John, N.B., April 29, on the str. Manitoba, for England, where he will remain for two or three months.

Miss J. K. Thompson, daughter of W. K. Thompson, C.P.R. Superintendent at White River, Ont., was married there April 12, to P. R. Wright, of Toronto Junction, Ont.

Professor Osler, of the Minnesota State Experimental Farm, Cookston, Minn., has been appointed Manager for Sir Wm. Van Horne's stock farm at St. Andrew's, N.B.

W. Blyth, travelling engineer and airbrake instructor Canada Atlantic Ry., Ottawa, attended the International Airbrake Association meeting at New Orleans, early in April.

D. E. Brown, C.P.R. General Agent for China and Japan, was married at Seattle, Wash., recently, to Mrs. C. B. Mills. Mr. and Mrs. Brown have since arrived in Hong Kong.

The late C. Cameron, of Collingwood, Ont., whose death was announced in our last issue, left an estate worth about \$100,000. As he left no will his relatives are seeking to administer.

The residence of T. C. Keefer, C.E., Rockcliffe Park, Ottawa, was entered by masked burglars, Mar. 30, and Mr. and Mrs. Keefer were robbed of their jewelry at the point of a revolver.

F. Grundy, Vice-President and General Manager Quebec Central Ry., Sherbrooke, Que., sailed for England at the end of April, to attend the annual meeting of the company in London.

Capt. W. Manson, engaged in shipbuilding and lake navigation at Kingston, and Port Hope, Ont., since 1847, died at the latter place, April 15. Capt. Manson of the str. Argyle is a son.

Chas. MacWood, formerly chief clerk at the G.T.R. car works, London, Ont., who died in Montreal recently, was a son of W. MacWood, Superintendent of the G.T.R. Car Department.

Sir Thos. Shaughnessy, President C.P.R., accompanied by his daughter, Miss A. Shaughnessy, sailed from New York for England, Mar. 29, on a holiday trip, and are expected back during May.

F. H. McGuigan, Fourth Vice-President G.T.R., and W. R. Baker, Assistant to the Vice-President C.P.R., attended the annual meeting of the American Railway Association, recently held in New York.

In the paragraph appearing in our April issue respecting John Paul, General Freight Agent Niagara, St. Catharines and Toronto Ry., the year of his birth was given as 1853. It should have been stated as 1858.

J. G. Thomson, a former Torontonian, and until lately C.P.R. Travelling Passenger Agent at Chicago, is reported to have been appointed city passenger and ticket agent for the West Shore Rd. in New York.

Sir Wm. VanHorne is one of the incorporators of the Grand Falls Power Co., which has been incorporated under the Dominion Companies' Act for the purpose of developing power at Grand Falls, N.B.

A. E. Cook, Export Freight Agent, C.P.R., is expected to return to Montreal early in

May, from Jamaica, West Indies. He is reported to have considerably benefited in health from his ocean trip to Bristol, Eng., and thence to Jamaica.

Col. E. McMullen, who originally came to Montreal in connection with the promotion of the Montreal Bridge Co., but who has latterly been connected with the promotion of the Ottawa Valley Ry., died in the Royal Victoria Hospital there, April 2, aged 78.

Capt. C. J. Armstrong, formerly 5th Royal Scots Regt., son of C. N. Armstrong, railway promoter and contractor, Montreal, has recently completed the construction of a railway between Harrismith and Bethlehem, Orange River Colony, for the Government.

C. F. Daly, heretofore Chief Assistant General Passenger Agent of the Lake Shore and Michigan Southern Ry. at Chicago, has been appointed Passenger Traffic Manager. A. J. Smith, General Passenger and Ticket Agent, Cleveland, Ohio, remains in that position.

J. G. McIntyre, who was foreman of the boiler shop at the old Great Western Ry. works, Hamilton, and who continued to hold the same position when the G.T.R. removed the works to Stratford, Ont., died there recently, aged 78. He retired from active service 1899.

F. W. White was presented recently with a gold chain and locket by the officials of district 4, C.P.R., on his giving up his position as chief clerk to the Superintendent at Ottawa, to become Assistant Purchasing Agent of the Transcontinental Ry. Commission at Ottawa.

E. B. Dewey, who died in Toronto, April 13, was father of C. E. Dewey, Division Freight Agent G.T.R., Toronto; of S. E. Dewey, Travelling Freight Agent G.T.R., Hamilton, and of F. R. Dewey, in the Toronto freight office of the New York Central and Hudson River Rd.

Harry A. Norton, of Coaticook, Que., who travels 30,000 miles a year in the interest of Norton Ball Bearing Jacks, has just completed an extensive tour of Cuba and Mexico, and is spending a short time at the Norton's winter home, Ralston-by-the-Sea, Santa Barbara, California.

J. T. Stafford, Superintendent Pere Marquette shops, St. Thomas, Ont., was presented with a golden locket and an umbrella by the employees on the occasion of his recent promotion to the position of Assistant Master Mechanic, at the company's shops at Grand Rapids, Mich.

Sir C. Rivers Wilson, President G.T.R.; Sir W. Young, a director G.T.R.; T. Skinner, director C.P.R., and Sir P. Girouard, formerly in charge of the railways in the Transvaal and Orange River Colonies, were among the guests at a dinner of the Canada Club, London, Eng., April 5.

F. D. McNaughton, C.E., who has been appointed Deputy Minister of Public Works for Manitoba, graduated from the School of Practical Science, Toronto, 1898, and for the last five or six years has been engaged as engineer for Cornwall, Ont., and for several of the adjoining municipalities.

A. Davis, who was Manager of the old North Shore Ry. between Montreal and Quebec, and its Superintendent for some time after the C.P.R. acquired it, and who was employed as a consulting engineer by the Department of Railways and Canals, died in Montreal recently. In accordance with his request his body was cremated.

Jas. Coleman, who recently resigned the position of Master Car Builder Central Vermont Ry., was presented with a cabinet of 159 pieces of silver by the officials of the company on the occasion of his leaving St. Albans, Vt., for Montreal, where he has been appointed Superintendent of the works of the Canada Car Co., now under construction there.

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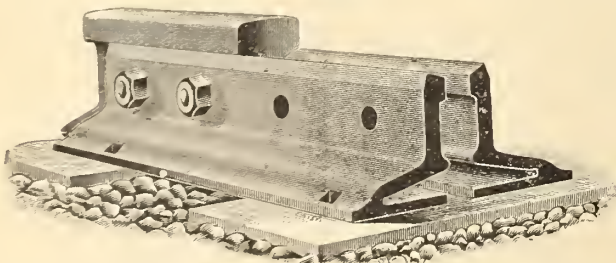
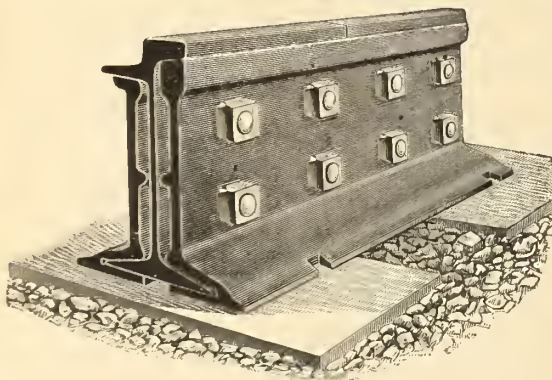
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N. Curry, of Rhodes, Curry & Co., Amherst, N.S., accompanied by Mrs. Curry, arrived at New Westminster, B.C., April 11. They had previously visited New Orleans, La.; San Francisco, Cal., and Victoria, B.C. They were expected to return to Amherst early in May. Mr. Curry has been elected a director and Vice-President of the Maritime Coal and Ry. Co.

The transportation and allied interests were well represented at the Toronto Horse Show in April, the following having boxes which they bought by auction at the prices named:—E. B. Osler, \$140; W. Mackenzie, \$135; W. D. Matthews, \$135; D. D. Mann, \$130; W. Hendrie, \$130; H. C. Hammond, \$125; R. A. Smith, \$125; T. Long, \$130; G. Marks, \$110; F. B. Polson, \$80.

R. K. Harris, who has been appointed Chief Engineer, Orford Mountain Co., Kingsbury, Que., was born at Maitland, Ont., July 20, 1866, and entered railway service in 1886, since which his record has been: 1886, rodman on construction Brockville, Westport and Sault Ste. Marie Ry.; 1887-1888, rodman on construction of C.P.R. in Maine; to 1895 on engineering staff of the G.T.R. under the late E. P. Hannaford; 1897 to 1899, on the permanent way staff, Middle division, same road; 1900 to 1904, construction engineer Orford Mountain Ry.

A. L. Ogilvie, who has been appointed General Purchasing Agent, Transcontinental Railway Commission, was born at Richwood Oxford County, Ont., May 23, 1868. He studied architecture and graduated in Toronto 1890, practising there until 1898, when he went to the Yukon. He returned in 1900 and was appointed architect in the Public Works Department at Ottawa; in 1901 he was appointed Superintendent of Public Buildings at Ottawa, and on Oct. 12, 1904, was appointed General Purchasing Agent to the Transcontinental Railway Commission.

W. H. Underwood, who has been appointed Assistant General Passenger Agent Michigan Central Rd., at Chicago, Ill., was born at Rochester, N.Y., May 6, 1858, and entered railway service 1874, since which he has been consecutively: 1874 to May 1, 1876, clerk in office Assistant General Superintendent Michigan Central Rd.; May, 1876, to July, 1878, clerk city ticket office, Canada Southern Ry., Detroit, Mich.; July, 1878, to April, 1883, city passenger and ticket agent Wabash Rd., Detroit; April, 1883, to April, 1887, Western Passenger Agent, Michigan Central Rd., Chicago, Ill.; April, 1887, to April, 1905, General Eastern Passenger Agent, same road, Buffalo, N.Y.

F. I. Whitney, who has been appointed Passenger Traffic Manager, Great Northern Ry., St. Paul, Minn., was for several years prior to 1881 connected with the Michigan Central Rd., and from Sept., 1881, to April, 1887, he was Assistant General Passenger and Ticket Agent of that road. His subsequent record has been: April to July, 1887, city passenger agent Lake Shore and Michigan Southern Ry., Chicago; July, 1887, to July, 1888, western passenger agent same road at Chicago; July, 1888, General Passenger and Ticket Agent St. Paul, Minneapolis, and Manitoba Ry., remaining in that capacity as the line developed into the Great Northern Ry.

G. E. King, who has retired from the position of Assistant General Passenger and Ticket Agent Michigan Central Rd., at Chicago, Ill., was born May 1, 1844, and entered railway service in 1863 as tally clerk Michigan Central and Northern Indiana Rd., at transfer freight house; entered service U.S. army May, 1864, with 130th Ohio Volunteer Infantry, and from Sept., 1864, to the close of the war was clerk to quartermaster at Louisville, Ky.; after the close of the war was engaged in mercantile pursuits to May, 1874,

when he entered the service of the Detroit and Bay City Ry. as general agent and local agent at Bay City, Mich.; Dec. 1, 1876, to April 1, 1887, ticket agent Michigan Central Rd.; April 1, 1887, to Mar. 1, 1889, Assistant General Ticket Agent, same road; Mar. 1, 1889, to April 1, 1905, Assistant General Passenger and Ticket Agent, same road.

G. A. Mountain, whose portrait appears on the first page of this issue, was born in Quebec city, 1860, and began his professional career in the employ of Kinipple and Morris, of London, Eng., engineers for the Louise Embankment and graving docks, Quebec, remaining with them during their work on the Island Ry. of Newfoundland, and the Quebec and Lake St. John Ry. He joined the engineering staff of the Canada Atlantic Ry. in 1881, and was Assistant Engineer until 1887, when he was appointed Chief Engineer, which position he held up to July, 1904, when he was appointed Chief Engineer to the Board of Railway Commissioners for Canada. As Chief Engineer to the Canada Atlantic Ry., he had charge of the construction of the line between Ottawa and Parry Sound, and of the Coteau bridge across the St. Lawrence River. He became a member of the Canadian Society of Civil Engineers in 1887, has been a member of its council for several years, and is a past vice-president.

J. F. Chapman, whose portrait appeared on pg. 157 of our last issue, was born at Frankford, Hastings County, Ont., Aug. 25, 1863, and having learned telegraphy, was appointed first agent of the northern extension of the Central Ontario Ry. at Frankford. As the line was opened up he was moved to other stations, being officially located at Coe Hill Mines, the northern terminus. On the closing down of the Coe Hill mines he entered the service of the Bay of Quinte Ry., his record being: June, 1886, to Aug., 1890, chief clerk to General Freight and Passenger Agent, B. of Q. Ry., at Deseronto; Aug., 1890, to Jan., 1895, Superintendent of the Thousand Islands Ry., at Gananoque, Ont.; Jan., 1895, to Jan., 1904, Assistant General Freight and Passenger Agent, B. of Q. Ry., T.I. Ry., Oshawa Ry., and the Deseronto Navigation Co. at Deseronto; Jan., 1904, to date, General Freight and Passenger Agent, same lines. Two brothers are also in the railway service, E. R. being Superintendent of the Thousand Islands Ry. at Gananoque, and A. M., Agent Central Ontario Ry. at Frankford.

May Birthdays.

Many happy returns of the day to

Garret Vliet, Assistant Master Mechanic, G.T.R., Portland, Me., born at Milwaukee, Wis., May 5, 1851.

W. R. Baker, Assistant to Vice-President, C. P. R., Montreal, born at York, Eng., May 25, 1852.

S. Barker, M.P., ex-General Manager Northern Ry., Hamilton, Ont., born at Kingston, Ont., May 25, 1839.

C. W. Burpee, Superintendent C.P.R., Brownville Jet., Me., born at Keswick, N.B., May 15, 1861.

G. S. Cantlie, Superintendent Car Service, C.P.R., Montreal, born there May 2, 1867.

C. L. Coon, City Passenger and Ticket Agent, G.T.R., Buffalo, N.Y., born at Watertown, N.Y., May 20, 1868.

M. Donaldson, General Superintendent, Canada Atlantic Ry., Ottawa, Ont., born near Edinburgh, Scotland, May 1, 1851.

G. C. Dunn, District Engineer Transcontinental Railway surveys, Fredericton, N.B., born at Quebec, May 13, 1862.

Hon. W. C. Edwards, Temiskaming Steamboat Co., Rockland, Ont., born at Clarence, Ont., May 7, 1841.

J. D. Evans, Engineer Central Ontario Ry., Trenton, Ont., born at Goderich, Ont., May 27, 1843.

F. M. Fallon, City Passenger and Ticket Agent, Rutland Rd., Montreal, born there May 26, 1875.

E. T. Galt, President Alberta Ry. and Irrigation Co., Lethbridge, Alta., born at Sherbrooke, Que., May 24, 1850.

J. R. Gilhula, Chief Dispatcher, Pere Marquette Rd., St. Thomas, Ont., born at Chat-ham, Ont., May 27, 1865.

A. Hardy, General Freight and Passenger Agent, Quebec and Lake St. John Ry., Quebec, born there May 12, 1855.

C. M. Hays, 2nd Vice-President and General Manager, G.T.R., and President G.T. Pacific Ry., Montreal, born at Rock Island, Ill., May 16, 1856.

W. T. Huggan, Accountant and Auditor Prince Edward Island Ry., Charlottetown, P.E.I., born at Halifax, N.S., May 24, 1851.

J. Hunter, Chief Engineer and General Superintendent Esquimalt and Nanaimo Ry., Victoria, B.C., born at Aberdeen, Scotland, May 7, 1839.

W. S. Kinnear, Chief Engineer, Michigan Central Rd., Detroit, Mich., born at Circleville, Ohio, May 25, 1864.

A. L. Ogilvy, General Purchasing Agent, Transcontinental Railway Commission, Ottawa, Ont., born at Richwood, Oxford County, Ont., May 23, 1868.

G. A. Parker, Auditor Dominion Atlantic Ry., Kentville, N.S., born at Walton, N.S., May 1, 1855.

N. J. Power, Auditor of Disbursements, G.T.R., Montreal, born at Rochester, N.Y., May 19, 1843.

Hayter Reed, Manager-in-Chief C.P.R. hotels, born at L'Original, Ont., May 26, 1849.

H. B. Sherwood, Superintendent Bay of Quinte Ry., Napanee, Ont., born at Auburn, N.Y., May 25, 1847.

E. Tiffin, General Traffic Manager, I.C.R., Moncton, N.B., born at Hamilton, Ont., May 5, 1849.

W. H. Underwood, Assistant General Passenger Agent, Michigan Central Rd., Chicago, Ill., born at Rochester, N.Y., May 6, 1858.

J. H. Walsh, General Freight and Passenger Agent, Quebec Central Ry., Sherbrooke, Que., born at Quebec, May 12, 1860.

H. K. Wicksteed, Chief Engineer James Bay Ry., Parry Sound, Ont., born at Quebec May 25, 1855.

James Yeo, ex-Roadmaster Intercolonial Ry., Riviere du Loup, Que., born at Bideford, Devonshire, Eng., May 1, 1830.

J. A. Yorick, Canadian Passenger Agent, Chicago, Burlington and Quincy Rd., at Toronto, born at London, Ont., May 7, 1872.

The American Locomotive Co., and the Locomotive and Machine Co. of Montreal, have removed their New York offices to the Trinity Building, 111 Broadway.

At the Canadian Railway Club's monthly meeting in Montreal May 2, L. R. Johnson, Assistant Superintendent of Motive Power C.P.R., will lecture on Japan, illustrated by lime light views. There will also be a musical programme and ladies will be admitted.

The Intercolonial Ry. passenger department has issued a number of attractive folders for the current season. "The Maritime Express" gives a description of all the points reached by the line, starting from Montreal, with a time table of the train. The others are "Salmon Fishing," "Moose of the Miramichi," "Fishing and Hunting," and "A Week in the Canadian Woods." The map given in these folders has been brought somewhat more up-to-date than those previously issued, but it is still considerably out, notably in regard to the route of the Halifax and Southwestern Ry.



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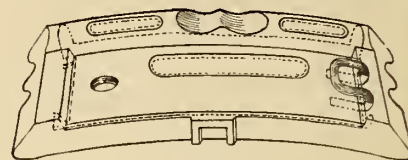
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Canadian Freight Association.

The annual meeting was held in Montreal April 6, the President, Carl Howe, in the chair. J. Paul, G.F.A. Niagara, St. Catharines and Toronto Ry.; J. S. Pyeatt, Superintendent Pere Marquette Rd., and R. A. Carter, D.F.A. Richelieu and Ontario Navigation Co., were elected active members, and B. H. Bennett, G.A., Chicago and Northwestern Ry., was elected an honorary member.

It was pointed out that the meeting was held on the Association's 21st anniversary. The Association started with 18 members, and now has over 90 active and 30 honorary members.

Officers and committees were elected as follows: President, W. R. MacInnes; 1st Vice-President, Geo. Collins; 2nd Vice-President, F. J. Watson; Executive Committee, W. B. Bulling, J. Pullen, C. Howe; Advisory Committee, J. W. Loud, W. R. MacInnes, W. P. Hinton.

CLASSIFICATION COMMITTEE—W. B. Bulling, S. P. Howard, F. J. Watson, C. E. Dewey, T. Marshall, C. Howe, C. A. Jaques, W. Phillips, E. R. Bremner, F. F. Backus.

FREIGHT INSPECTION COMMITTEE—G. Collins, F. Conway, F. F. Backus, M. H. Brown, J. J. Mossman, A. Cowan, L. Macdonald, John Paul.

CAR SERVICE COMMITTEE—J. B. Morford, M. C. Sturtevant, G. S. Cantlie, E. Fisher, J. F. Chapman, J. S. Pyeatt, E. F. Seixas, G. Tombs.

The appointment of Secretary-Treasurer and Manager of the Car Service Bureau and the Inspection Bureau, was referred to the Executive Committee.

It was decided to hold the next meeting of the Association in July at Hotel Champlain, Bluff Point, N.Y.

C.P.R. Powers Respecting Branch Lines.

The Supreme Court of Canada has delivered judgment in the case referred to it by the Board of Railway Commissioners, in which the right of the C.P.R. Co. to construct branches from its main transcontinental line, under the terms of its original charter, and without additional parliamentary authority, was involved. The particular line under construction, and upon which the point was raised, is from Romford, on the main transcontinental line 6.7 miles east of Sudbury, Ont., to a junction with the company's line at or near Kleinburg, Ont., to give direct connection with Toronto. The point was raised by the James Bay Ry. Co., one of Mackenzie, Mann and Co.'s lines, which is now under construction from Toronto to Parry Sound, en route to Sudbury. The stated case was arranged between counsel for the C.P.R. and the James Bay Ry., and approved by the Railway Commissioners, and the contesting parties submitted statements of facts in support of their contentions. The questions submitted in the stated case were:

(1) Has the C.P.R. under the legislation, schedules and charter aforesaid, now power to construct the branch line referred to, or has the time expired within which such branch line might be constructed?

(2) Do such legislation, schedules and charter authorize construction by the said company of the proposed branch line, it being altogether situated in the Province of Ontario?

(3) Is it open to the James Bay Ry. Co. or to the Board of Railway Commissioners to take the objection that the time within which the said company may build branch lines under its charter has expired?

Judges Sedgewick, Girouard and Nesbitt delivered lengthy opinions answering ques-

tions 1 and 2 in the affirmative. Judge Davies concurred in Judge Nesbitt's opinion, and also answered questions 1 and 2 in the affirmative. Judge Nesbitt thought an answer to question 3 was unnecessary, in view of his opinion on the other questions, but he answered it in the affirmative. Judge Sedgewick concurred with Judge Nesbitt in regard to question 3. Judge Davies expressed no opinion in regard to question 3. Judge Girouard said that in consequence of his answers to questions 1 and 2 an answer to question 3 was unnecessary. Judge Idington dissented from the other judges, and gave his opinion that the time had expired within which such a branch line as the Romford-Kleinburg line might have been constructed. The net result is that the court stood four to one in favor of the C.P.R. Co.'s contention that under the legislation, etc., of 1881, it has the power to build the branch line referred to, and that such legislation, etc., authorizes the construction by the company of the branch line, it being altogether situated in Ontario.

Taxability of the C.P.R. Land Grant.

The Supreme Court of Canada has delivered judgment in the three appeals, in which the question of the taxability of the lands granted to the C.P.R., to aid in the construction of the line, was involved. The municipalities of Cypress and Argyle, in Manitoba, were the plaintiffs in two of the cases, which raised the right of municipalities in Manitoba to tax C.P.R. lands within the area added to the province in 1881; and in the third case the C.P.R. appealed against the action of the school district of Springdale, N.W.T., in assessing the portions of the C.P.R. land grant within its limits for school purposes. The court, after a full review of all the facts, and the statutes referring thereto, decided that the 20 years' exemption from taxation, granted for the 25,000,000 acres of land conveyed to the C.P.R. by the Dominion Government in the contract for the construction of the line, was to begin from the issuing of the letters patent granting the lands to the company after selection. The two appeals from Manitoba were dismissed, and the one from Springdale was allowed, in each case with costs in favor of the C.P.R.

While the three cases were nominally fought by the local authorities, they were test cases taken at the instance of the Dominion Government. In the Manitoba cases the courts there held that the power to tax commenced 20 years from the date of the issuing of the letters patent by the Crown, which decision has been confirmed; and in the Springdale case, the courts held that there was power to tax the lands for school purposes. The C.P.R. appealed against this view, and its appeal has been upheld.

A. R. Creehuan, K.C., Chief Solicitor of the C.P.R., in an interview after the decision had been announced, stated that the chief source of grievance is now rapidly disappearing. So soon as the lands are sold and occupied the exemption ceases. That is a point which should be made perfectly clear. Large areas of the company's holdings are now being sold each year, so that the quantity of non-taxable lands is disappearing much more rapidly than would be the case were the expiration of the 20 year limit awaited. One thing is certain, the company has no desire to hold the lands longer than is absolutely necessary. The sooner the now unoccupied areas are populated the better it will be for the company as a transportation concern.

The Lethbridge Electric Co. is enlarging its plant and has ordered a 350 horse-power engine and two 125 horse power boilers from the Robb Engineering Co., Amherst, N.S.

Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:—

Authorizing the Canadian Northern Ry. to cross the C.P.R. at Emerson station, Man., (Feb. 14.)

Approving plans for the construction of a spur line, 1,900 ft. long, near the Forks of Credit Station, Ont., for the C.P.R. (Mar. 14.)

Authorizing the Vancouver, Westminster and Yukon Ry. to construct a branch line on Front St., Vancouver, B.C. (Mar. 14.)

Directing the removal of the west track of the Lake Erie and Detroit River Ry., where it crosses the London and Port Stanley gravel road, Elgin county. (Mar. 16.)

Approving of the crossing of the G.T.R. by the Dupuis Fourth Line drain, near the Ruscom, in Rochester tp., Essex County. (Mar. 21.)

Approving plans for a deck-plate girder span over Baker brook on the Temiscouata Ry. (Mar. 22.)

Authorizing the Vancouver, Victoria and Eastern Ry. and Navigation Co. to open the branch from Grand Forks to Phoenix, B.C., and the Granby Smelter spur. (Mar. 23.)

Authorizing the James Bay Ry. to construct a bridge over Wallace cut, Lake Muskoka, and over the Severn River at Ragged Rapids crossing. (Mar. 24.)

Approving of plans for the reconstruction of a number of bridges on the C.P.R. lines. (Mar. 27.)

Authorizing the Vancouver, Westminster and Yukon Ry. to carry its telegraph wires across the track of the C.P.R. in New Westminster, B.C. (Mar. 27.)

Authorizing the Vancouver, Westminster and Yukon Ry. to carry its telegraph wires across the tracks of the British Columbia Electric Ry. in Vancouver, B.C. (Mar. 27.)

Authorizing the Vancouver, Westminster and Yukon Ry. to carry its telegraph wires across the C.P.R. tracks near the Fraser River Bridge, New Westminster, B.C. (Mar. 27.)

Authorizing the C.P.R. to construct a branch line from the spur already constructed at Bienfait, Man. (Mar. 28.)

Granting authority to the G.T.R. to reconstruct the bridge over the River Speed, 48½ miles from Toronto. (Mar. 28.)

Sanctioning the deviation of the C.P.R. line between mileage 104 and mileage 107, near Aikens, Assa. (Mar. 28.)

Approving the crossing of the C.P.R. in Sault Ste. Marie, Ont., by tracks of the International Transit Co., on the latter providing the necessary interlocking, derauling and signalling devices. (Mar. 28.)

Granting permission to the Guelph and Goderich Ry. to permanently divert the highway near Milverton, Ont., under the bridge crossing the Milverton River. (Mar. 30.)

Directing the C.P.R. to provide interlocking, derauling and signalling devices at the Ashburnham bridge, Peterborough, Ont., where the railway crosses the Trent Valley canal. (Mar. 30.)

Authorizing the C.P.R. as lessees of the Guelph Junction Ry. to construct a line to the Page-Hersey Iron Tube Works, Guelph, Ont. (Mar. 30.)

Approving plans of a deviation of the already located line of the Canadian Northern Ry. from Carman, between the track end and the proposed junction with the Morris Brandon branch at Somerset, Man. (Mar. 30.)

Authorizing the C.P.R. as lessees of the Ontario and Quebec Ry. to construct a spur track on George St., Peterborough, Ont. (Mar. 31.)

Approving general specifications for steel railway bridges and viaducts, and bridge masonry for the G.T.R. (April 4.)

Approving plans for deck-plate girder span

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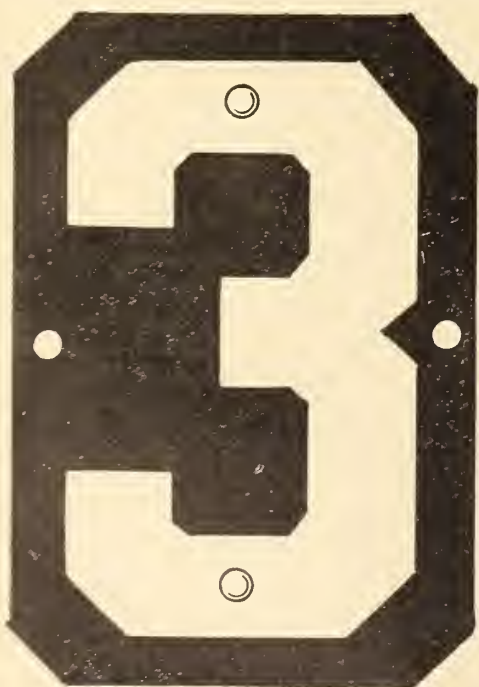
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over Little River, Que., for the Temiscouata Ry. (April 4.)

Authorizing the Vancouver, Westminster and Yukon Ry. to use the swing bridge recently completed over False Creek, Vancouver, B.C. (April 8.)

Extending to April 15 the time within which the G.T.R. may accept the order for the expropriation of the Front St. property, Toronto. (April 8.)

Approving plans for the reconstruction of bridge 488A over the Kicking Horse River, C.P.R., Mountain section, Pacific division. (April 12.)

Approving plans for the reconstruction of seven bridges on the Canada Atlantic Ry. (April 12.)

Authorizing the C.P.R. as lessees of the Ontario and Quebec Ry. to expropriate for railway purposes lands in the town of Perth, Ont. (April 13.)

Authorizing a deviation from the located line of the projected line of the Toronto and Niagara Power Co., through Grimsby township. (April 15.)

RATES FOR GRAIN AND MILLED PRODUCTS.

The following order was issued by the Commissioners on April 15:—

"In the matter of the complaint of the Farmers' Association of Canada against the G.T.R. Co., the C.P.R. Co. and other Railway Companies in Ontario and Quebec, under sections 252 and 253 of the Railway Act, 1903, to the Board, alleging that discrimination exists between the rates charged for the transportation of grain and of grain products, respectively, in that higher rates are charged on the grain than on the milled products thereof, both of which were formerly carried on the same basis of rates. Upon hearing Messrs. Wilson and Gregory on behalf of the complainants and Mr. Loid for the respondent companies, and upon the report and recommendation of the Chief Traffic Officer of the Board, and the evidence adduced—the Board doth order that the respondent companies restore the equilibrium between their freight rates on grain and its products by reducing the rates now charged on grain to the same basis as charged on the milled products thereof."

The I.C.R. and the Canada Atlantic.

In connection with the passing through the House of Commons of the bill authorizing the G.T.R. to acquire and take over the Canada Atlantic Ry. the announcement was made April 5, that special legislation would be introduced by the Government to enable it to take running rights over the G.T.R. from Montreal to Coteau, Que., and over the Canada Atlantic Ry. from Coteau, Que., to Depot Harbor, Ont., upon terms to be fixed by the Railway Commission. This will enable the I.C.R. to run its trains through from Halifax, N.S., and St. John, N.B., to Depot Harbor, Ont. The proposed legislation provides not only for the use by the I.C.R. of the Canada Atlantic Ry. Co.'s terminals at Depot Harbor, Ont., but gives authority to provide independent terminals there should circumstances warrant it. The Minister of Railways, in announcing the forthcoming legislation, stated that the tolls to be charged by the I.C.R. west of Montreal would be subject to the control of the Railway Commission, and added that the Commission would have no more control of the line east of Montreal than it has at present. It would be the Government's policy to use the line between Georgian Bay and Montreal, together with the present system, for the purpose of taking freight from the Great Lakes to the Canadian seaboard at Montreal, Quebec, Halifax, St. John and possibly Sydney.

The special legislation necessary to give

effect to the Government proposal was introduced April 10, and consists of an amendment to the Railway Act. The proposal is that on the transfer of the Canada Atlantic Ry. to the G.T.R., the Government reserves running powers over the G.T.R. from Montreal to Coteau, Que., and over the C.A.R. from Coteau, Que., to Parry Sound, Ont., for through freight and passenger trains, and to do a local freight and passenger business. The terms of compensation for such rights are to be determined by the Railway Commission, with an appeal to the Supreme Court instead of to the Governor-in-Council as in ordinary cases. The Premier explained that it was not the intention of the Government at present to run I.C.R. trains from Montreal to Georgian Bay, but as the G.T.R. and the Canada Atlantic Ry. were making an agreement between themselves, the Government merely ensured that if it were desired to have running rights for the Intercolonial Ry., the Railway Commission was authorized to fix the terms. The bill was read a first time.

Railway Equipment Notes.

The Minudie Coal and Ry. Co. will be in the market shortly for a locomotive, passenger car and 10 or 20 flat cars.

The James Bay Ry. has ordered from the Canada Foundry Co., Toronto, five 10-wheel locomotives, for May and June delivery.

The passenger car erecting shop at Rhode, Curry & Co.'s works, Amherst, N.S., is being extended owing to increased demands for cars.

J. J. Gartshore has sold a locomotive of the yard engine type to the Grey and Bruce Cement Co., Owen Sound, to run between the marl pits and the G.T.R.

Rhodes, Curry & Co., Amherst, N.S., have recently completed 250 flat cars and 50 box cars for the Intercolonial Ry., and 50 box cars for the Quebec Central Ry.

The Intercolonial Ry. is not at present in the market for additional equipment, but will be very shortly, an appropriation of \$698,500 being voted for that purpose.

One of the old first-class cars of the Canada Eastern Ry. has been reconstructed in the I.C.R. shops at Moncton, N.B., as a combined second-class and baggage car.

The G.T.R., between Feb. 11 and Mar. 20, received the following new equipment:—160 box cars, 60,000 lbs. capacity, from the United States, being part of an order for 1,000 cars.

The C.P.R. placed the following orders for equipment between Mar. 22 and April 13:—11 passenger and freight locomotives, one sleeping car and one tourist car, at its Angus shops; and one pile driver in the United States.

The G.T.R. added to its rolling stock between Mar. 11 and April 1, 226 box cars of 60,000 lbs. capacity, from a U.S. firm with which an order for 1,000 cars had been placed, and 231 box cars of similar capacity, also from a U.S. firm.

The C.P.R. added the following to its equipment between Mar. 22 and April 13:—Five switching locomotives, one first class car, four colonist cars, 235 flat cars, from its Angus shops; eight vans from its Farnham, Que., shops, and four colonist cars from the United States.

The Crossen Car Manufacturing Co., Cobourg, Ont., has under construction 10 second-class vestibuled coaches, and five baggage cars for the Canadian Northern Ry., four conductor's vans for the James Bay Ry., one baggage and mail car and 10 stock cars for the Temiskaming and Northern Ontario Ry.

There was expended for rolling stock for the Intercolonial Ry. between July 1, 1896, and June 30, 1904, a total of \$5,751,085.03. The rolling stock on hand June 30, 1905, was:—302 locomotives, 367 passenger cars, 10,107 freight cars, 86 snow ploughs, etc. There were on hand to be rebuilt at that date, three locomotives, three passenger cars, and one snow plough.

The 200 convertible ballast cars which the C.P.R. is having built at its Angus shops will be 34 ft. long, and of 80,000 lbs. capacity. The bodies will be of wood, placed on C.P.R. standard trucks; journals, 5 by 9 ins.; and cast iron wheels, 35 ins. in diameter. The special fittings will include Westinghouse air brakes, Simplex bolsters, and brake beams; and Susemihl side bearings.

The Crossen Car Manufacturing Co., Cobourg, Ont., has delivered during the current year three first-class vestibuled coaches, four second-class vestibuled coaches, two baggage and mail cars, to the Temiskaming and Northern Ontario Ry.; one first-class passenger coach and one combined baggage and mail coach to the Central Ontario Ry., and 50 box cars to the Intercolonial Ry.

The Locomotive and Machine Co., of Montreal, has completed an order for ten 10-wheel locomotives for the Canadian Northern Ry.; and has now under construction 10 mogul Richmond compound locomotives for the G.T.R.; one mogul Richmond compound locomotive for the Quebec and Lake St. John Ry., and a small 4-wheel saddle tank locomotive for the Lakefield Portland Cement Co.

The Intercolonial Ry. between Mar. 28 and April 19 added to its rolling stock four Pacific type locomotives from the Canadian Locomotive Co., Kingston, Ont., and three baggage cars from Rhodes, Curry & Co., Amherst, N.S. It also received 26 box and 43 flat cars from Rhodes, Curry & Co., to replace cars broken up or otherwise destroyed. No orders have been placed for rolling stock since Mar. 28, and the line is not at present in the market for any.

The Paul Lee Co. has been incorporated under the New Brunswick Companies' Act, with a capital of \$60,000 and offices at Moncton, N.B., to engage among other things in the manufacture of railway and tram cars, trucks, carriages, rolling stock and equipments of all kinds, including everything employed in and about the construction of such rolling stock. The provisional directors are:—P. J. A., C. S., and Mrs. A. Lea, D. J. Welsh, of Moncton, and M. M. Churchill, of Yarmouth, N.S.

The Canadian Locomotive Co., Kingston, Ont., is building a 10-wheel tank locomotive for the West Canadian Collieries, Blairmore, Alta., of the following general dimensions:—Type of engine, double ended side tank; fuel, bituminous coal; gauge, 4 ft., 8½ ins.; weight, 140,000 lbs.; wheel base, rigid, 10 ft.; cylinders, 18 x 24 ins.; driving wheels, 50 ins.; boiler pressure, 190 lbs.; type of boiler, radial stayed; brakes, Westinghouse automatic; style of tank, side; capacity of tank, 1,200 imperial gallons; front and rear truck, radial type.

Considerable progress has been made with the erection of the buildings for the Canada Car Co. at Montreal. The entire superstructure, it is expected, will be completed by the end of June, and it is hoped to have the machinery installed so as to begin the manufacture of cars in August. Electric turbine power will be used throughout, and over 100 motors will be required for the driving of individual machines. Electric cranes will also be used. The company expects to open the plant with 1,500 hands, which will be increased to 2,000 as soon as required. The plant will have a total capacity of 600 freight cars, 15 passenger coaches, and 30 electric railway cars a month.

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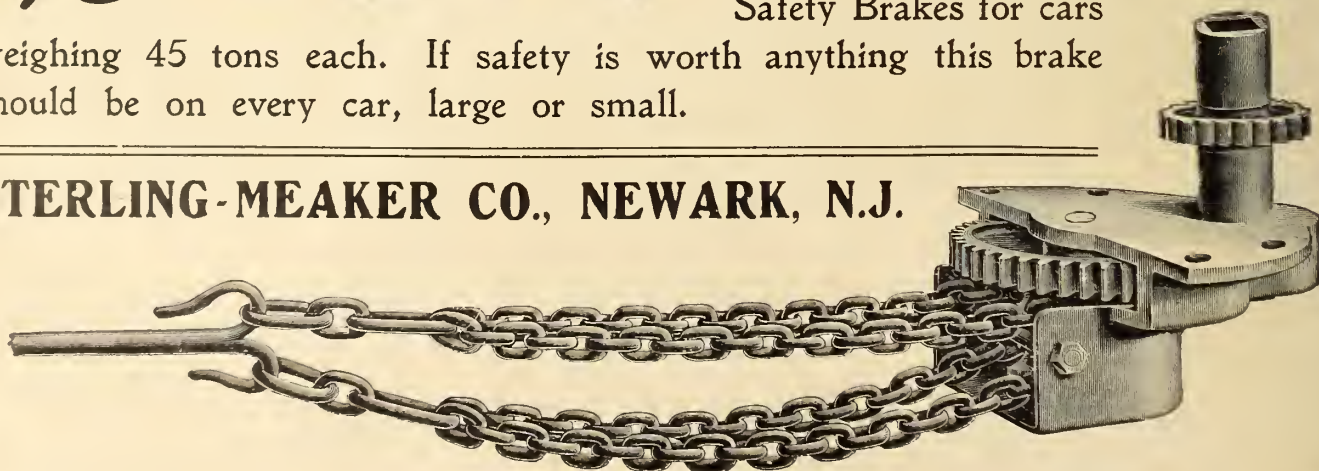
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The C.P.R. has placed orders for 50 locomotives, delivery during June, July and Aug., of which 10 are being built at the company's Angus shops; 10 by the Canadian Locomotive Co., Kingston, Ont.; and 30 by the Locomotive and Machine Co., of Montreal. The general dimensions, etc., which are identical, follow:—

CYLINDERS.—Type, piston; diameter, 21 in., stroke, 28 in.; piston rod, 3½ in. diameter.

TRACTIVE POWER.—33,320 lbs.

WHEEL BASE.—Driving, 14 ft. 10 in.; rigid, 14 ft. 10 in.; total, 26 ft. 1 in.; engine and tender, 54 ft. 6 in.

WEIGHT.—In working order, 190,000 lbs.; on drivers, 142,000 lbs.; engine and tender, 316,000 lbs.

HEATING SURFACE.—Tubes, 2,234 sq. ft., firebox, 166 sq. ft.; arch tubes, 28 sq. ft., total, 2,428 sq. ft.; grate area, 50 sq. ft.

AXLES.—Driving journals, main, 6 x 10 in.; engine truck journals, diameter, 6 x 10 in.; tender, 5½ x 10 in.

BOILER.—Type, extended wagon top, radial stayed; outside diameter first ring, 70½ in.; working pressure, 200 lbs.; fuel, bituminous coal;

FIREBOX.—Type, wide; length, 102½ in.; width, 69½ in.; thickness of crown, ¾ in.; tube, ½ in.; sides, 5-16 in.; back, ¾ in.; water space, front, 5 in.; sides, 4½ in.; back, 3½ in.

TUBES.—No. 244, of 2 in. diameter, and 44 of 3 in. diameter; length, 14 ft. 4 in.

BOXES.—Driving and others, cast steel.

BRAKE.—Driver and tender, Westinghouse; air signal, Westinghouse; pump, 11 in. left hand; reservoir, 50,000 cubic inches.

ENGINE TRUCK.—Four wheel.

GRATE.—C.P.R. cast iron rocking.

SMOKE STACK.—Diameter, 14½ in. inside; top above rail, 15 ft. 2 in.

TENDER.—Frame, C.P.R. standard; tank, water bottom; tank capacity, 5,000 imperial gallons; fuel capacity, 10 tons.

VALVES.—Travel, 6 in.; steam lap, 1½ in.; ex. lap, 3-32 in.; setting, line and line.

WHEELS.—Driving, diameter outside tire, 63 in.; centres, diameter, 56 in.; material, cast steel; engine truck, diameter, 31 in.; kind, C.P.R. standard; tender, 34 in.; wrought iron disc.

The Michigan Central Rd. has placed an order with the Locomotive and Machine Co., of Montreal, for 14 consolidation freight locomotives, and one Pacific type passenger locomotive. This latter will be the heaviest locomotive ever built in Canada, weighing about 220,000 lbs. Following are the general dimensions, etc., of the consolidation freight locomotives:—

Cylinder, type, compound
diam., 23 in. and 35 in.
stroke, 32 in.

Track gauge, 4 ft. 8½ in.
tractive power, 37,300 lbs.

Wheel base, driving, 17 ft. 0 in.
rigid, 17 ft. 0 in.

" " total, 25 ft. 9 in.
" " total, engine and tender, 55 ft. 1 in.

Weight, in working order, 198,500 lbs.
" " on drivers, 174,000 lbs.

" " engine & tender 326,500 lbs.

Heating surface, tubes, 2,911.6 sq. ft.
" " firebox, 156.3 sq. ft.

" " total, 3,067.9 sq. ft.

Grate area, 50.23 sq. ft.

Axles, driving journals, main, 9½ in. x 12 in.
" others, 9 in. x 12 in.

" " engine truck journals, diameter, 6 in.
" " length, 12 in.

" " tender truck journals, diameter, 5 in.
" " length, 9 in.

Boiler, type, straight
working pressure, 210 lbs.

Firebox, type, wide
length, 96½ in.

" " width, 75½ in.

Crown staying, radial
Tubes, no. 359; diam. 2 in.

" length, 15 ft. 7 in.
" gauge, No. 11, B. W. G.

Boxes, driving, main, cast steel
" others, cast steel

Brake, driver, Westinghouse
" tender, Westinghouse

" air signal, Westinghouse

Engine truck, 2-wheel swing centre C.S. frame

Exhaust pipe, cast iron single

Grate, style, rocking, in 4 sections

Tender frame, A.L.Co. 10 in. channels

Tank, style, water bottom
" capacity, 6,000 gallons, U.S.

" capacity, fuel, 14 tons

Wheels, driv. diam. outside tire, 63 in.
" " centres diam., 56 in.

" " material, main, cast steel
" " others, cast steel

" " engine truck diam., 31 in.
" " tender truck, diam., 34 in.

Following are the general dimensions, etc., of the Pacific type passenger locomotive:—

Cylinder, type, simple piston valve
diam., 22 in.

" " stroke, 26 in.

Track gauge	4 ft. 8½ in.
tractive power	28,523 lbs.
Wheel base, driving and rigid	13 ft. 0 in.
" " total	33 ft. 7½ in.
" " total, engine and tender	60 ft. 5 in.
Weight, in working order	221,000 lbs.
" " on drivers	140,500 lbs.
" " engine and tender	343,600 lbs.
Heating surface, tubes	3,690.6 sq. ft.
" " firebox	180.3 sq. ft.
" " arch tubes	23.6 sq. ft.
" " total	3,894.5 sq. ft.
Grate area	50.23 sq. ft.
Axles, driving journals, main	9½ in. x 12 in.
" " engine truck journals, diameter	6 in. x 12 in.
" " trailing truck journals, diameter	8 in. x 14 in.
" " tender truck journals, diameter	5½ in. x 10 in.
Boiler, type, straight top radial stay	
working pressure	200 lbs.
Firebox, type, wide	
" length	96½ in.
" width	75½ in.
Crown stay	Radial
Tubes, no. 354; diam. 2 in.	
" length	20 ft. 0 in.
" gauge	No. 11, B.W.G.
Boxes, driving main, and others	cast steel
Brakes, tender	Westinghouse
" air signal	Westinghouse
Engine truck	swing centre bearing
Trailing truck	radial, with outside journals
Exhaust pipe	cast iron, single
Grate, style	R.R. Co., C. I. rocking
Tender frame	10 in. channels, A. L. Co.
Tank, style	water bottom
" capacity	6,000 gallons, U.S.
" capacity, fuel	10 tons
Wheels, driv. diam. outside tire	63 in.
" " centres diam.	56 in.
" " material, main	cast steel
" " others	cast steel
" " engine truck, diam.	36 in.
" " kind	wrought iron disc
" " trailing truck, diam.	50 in.
" " kind	cast steel centre
" " tender truck, diam.	36 in.
" " kind	wrought iron disc

Railway Finance, Meetings, etc.

Bracebridge and Trading Lake Ry.—Following are the officers for the current year:—President, F. P. Warne; Vice-President, W. W. Kinsey; Managing Director, W. H. Brown; Solicitor, T. Johnson; Secretary-Treasurer, R. W. P. Perry. The meeting was adjourned to March 28, when F. C. Norris, a U.S. promoter, was expected to be present to discuss financial matters.

Canada Atlantic Ry.—The Dominion Parliament is being asked at its current session to pass an act authorizing the issue of debentures and other securities to the extent of £3,292,200, subject to the present outstanding bonds of the C. A. Ry., and of the Ottawa, Arnprior and Parry Sound Ry.

Canadian Northern Ry.—A prospectus has been issued in London, Eng., offering for subscription at 95, £1,923,287 of C. N. Ry. 3% debenture stock, redeemable in 1953.

Cumberland Ry. and Coal Co.—The report presented at the annual meeting held recently, showed that the output of coal was 505,814 tons, the largest in the history of the company. The directors for the current year are: Sir Geo. Drummond, E. McDougall, D. Morrice, J. R. Cowans, G. L. Cains, E. S. Clonston, W. J. Morrice, W. J. Crossen, H. R. Drummond.

Cape Breton Ry.—A reorganization of the company's affairs has been completed, the new company having a capital of \$1,000,000, and no bonded indebtedness. The bonds of the old company to the amount of \$550,000 have been exchanged for stock, and the contractors have accepted stock in payment of their claim of \$300,000. The line is again in operation.

Esquimalt and Nanaimo Ry. The purchase made by the C.P.R. includes, in addition to the line of railway and its franchises, the shops at Wellington, B.C., and the floating equipment, the steamers Jom, City of Nanaimo, the tug Czar, and the transfer barge no. 1. The land grant of the E. and N. Ry. will be retained by the Dunsmuir estate. The bill authorizing the sale is before the Dominion Parliament, and the C.P.R. will doubtless take over the line at an early date.

Grand Trunk Ry.—The Dominion Parliament is being asked at its current session to pass an act authorizing the G.T.R. to acquire shares and securities of the Canada Atlantic Ry., and the Canada Atlantic Transit Co., in Canada, the Canada Atlantic Transit Co. in Minnesota, and of the Vermont and Province Line Ry. in Vermont; and also to authorize the company to guarantee principal and interest of bonds or other securities to be issued by the Canada Atlantic Ry. to the extent of £3,292,200.

Gulf Shore Ry.—Application will be made at the current session of the New Brunswick Legislature for an act authorizing the G. S. Ry. Co. to amalgamate with, or lease or sell its line to the Caraquey Ry. The line is operated by the Caraquey Ry., and is practically owned by the same interests.

Manitoba Southwestern Colonization Ry.—The Manitoba Government, in 1885, issued debentures to the value of \$899,846.66 to aid this company, taking as security 900,000 acres of the company's land grant. The company has paid \$853,643.20 of the debentures, and at the last session of the Manitoba Legislature an act was passed releasing the land grant to the company, except so much as would be sufficient security for the payment of the \$46,203.46 of debentures now outstanding.

Midland Ry. of Nova Scotia. The Dominion Parliament is being asked to sanction the sale of this line to the Dominion Atlantic Ry., the negotiations for the sale having been concluded. The M. Ry. extends from Windsor, N.S., the present northerly terminus of the D. A. Ry., to Truro, N.S., 57.50 miles, and has power to construct a line from Truro to Northumberland Strait. It is laid with 60-lb. steel and at the date of the last official report had the following rolling stock: three locomotives, five first-class cars, three baggage, mail and express cars, nine cattle and box cars, and 32 platform cars, all of which were equipped with air brakes and automatic couplers. It has a paid-up capital of \$104,300, and a bond issue of \$1,200,000, which had not been sold; and had received the following subsidies: Dominion Government, \$360,450.30; Nova Scotia, \$176,510.40; municipal, \$36,000. The total cost of the line and its equipment was reported to be \$1,598,548.68. For the year ended June 30, 1904, the gross earnings were \$65,311.92; net earnings, \$50,163.19, against \$57,155.49 gross and \$14,056.12 net for year ended June 30, 1903.

Nakusp and Shocan Ry. In 1894 the B.C. Government guaranteed the interest upon \$647,072 of bonds of this line at the rate of 4% for 25 years, upon which it has paid \$293,776.58 in interest and expenses, of which \$26,776.58 was for the year ended June 30, 1904. The receipts for the year, \$9,129.66, being 40% of the gross receipts, paid over by the C.P.R., which operates the line. After making allowance for percentage of earnings and other receipts the Government has paid out \$56,397.39 to meet the interest charges.

Quebec Central Ry. Subject to audit the directors have declared a dividend at the rate of 4% on the company's income bonds, payable April 17. The income bonds rank after payment of interest upon the whole of the fixed charges of the company's securities.

Shuswap and Okanagan Ry. The statement of public accounts for British Columbia to June 30, 1904, shows that the interest on the bonds of the company was \$50,139.15, and the receipts were \$21,896.27 from the C.P.R., representing 10% of the gross earnings. The total bond issue is £256,800, upon which the B.C. Government guaranteed interest at the rate of 4% for 25 years, and the net cost to the province has been \$306,696.

Tenimscouta Ry. Gross earnings for May, \$13,219.02, against \$10,311.21 for May, 1901.

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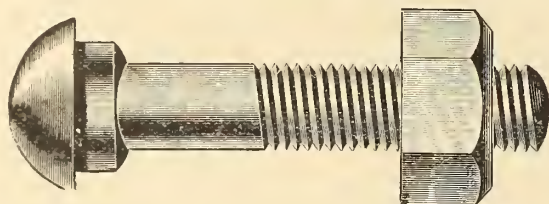
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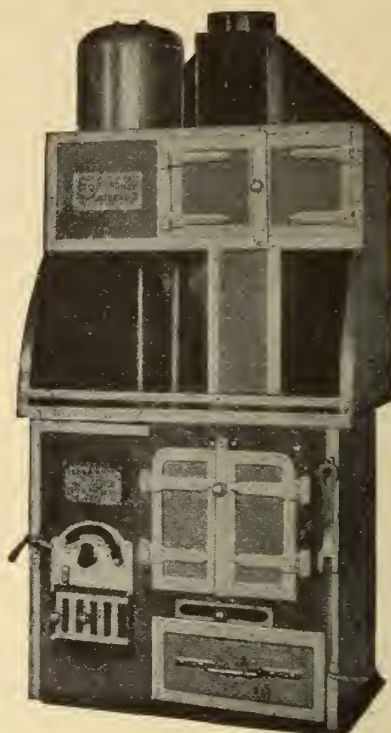
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ST. THOMAS, - - - ONTARIO

Victoria and Sidney Ry.—The B.C. Government guaranteed the interest upon \$300,000 of bonds to the extent of 2% a year for this railway. During the year ended June 30, 1904, the Government paid \$6,030 for interest and expenses, but there were no receipts. The total cost to the province of this guarantee to the date above named has been \$64,605.

C.P.R. Earnings, Expenses, Etc.

Gross earnings, working expenses, net profits, increases or decreases over 1903-04, from July 1, 1904:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July	\$4,398,833.95	\$2,949,181.81	\$1,449,652.14	\$131,125.02+
Aug.	4,474,237.64	2,946,307.21	1,527,930.43	93,827.03+
Sept.	4,220,876.03	2,952,068.47	1,268,807.56	60,541.75+
Oct.	4,743,961.93	3,177,848.02	1,566,113.91	87,913.10+
Nov.	4,751,970.43	3,082,393.69	1,669,576.74	191,593.56+
Dec.	4,502,142.45	2,809,473.62	1,692,668.83	81,523.57+
Jan.	3,522,501.93	2,829,833.46	422,668.47	65,016.44+
Feb.	3,056,094.05	2,753,922.73	302,171.32	219,630.51+

\$33,460,618.41 \$23,591,031.01 \$9,869,587.40 \$761,345.68+
Approximate earnings for Mar., \$4,093,000 against \$3,489,000, for Mar., 1904.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Feb., \$188,422.40; net earnings, \$45,635.30 against \$171,758.43 gross and \$30,008.23 net for Feb., 1904. Net earnings for eight months ended Feb. 28, 1905, \$574,803.39, against \$538,097.96, for same period, 1903-04. Approximate earnings for Mar. \$236,836 against \$205,043 for Mar., 1904.

MINERAL RANGE RY.—Approximate earnings for Mar., \$66,072, against \$48,801 for Mar., 1904.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Feb., \$523,872.75; net earnings, \$179,063.93, against \$389,207.02 gross and \$103,056.15 net for Feb., 1904. Net earnings for eight months ended Feb. 28, 1905, \$2,950,827.44 against \$2,411,707.82 for same period 1903-04. Approximate earnings for Mar., \$705,046, against \$474,106 for Mar., 1904.

Canadian Pacific Railway Land Sales.

	Acres.	Amount.
	1904-05	1903-04
July	36,425.75	267,647.32
Aug.	15,669.90	263,339.45
Sept.	16,470.02	60,441.12
Oct.	23,792.84	15,950.07
Nov.	23,392.84	22,563.95
Dec.	32,196.59	30,146.00
Jan.	34,500.41	116,840.78
Feb.	27,503.56	14,729.69
Mar.	15,906.61	12,992.06
	225,858.52	804,651.44

Grand Trunk Ry. Earnings, Expenses, etc.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1905.	1904.	Increase.	Decrease.
Jan.	\$2,556,340	\$2,253,378	\$302,962	....
Feb.	2,103,683	1,049,525	514,158	....
Mar.	2,911,207	2,049,779	261,428	....
	\$7,631,290	\$6,552,682	\$1,078,608	....

GRAND TRUNK RY. CO.

The following figures relate to the individual lines, and are made out in sterling:

	1905.	1904.	Increase.	Decrease.
Revenue for Feb.:				
Gross receipts	£350,600	£260,900	£89,700	....
Working expenses	299,700	285,700	14,000	....
Net profit	£50,900(D)	£24,800	£75,700	....
Aggregate from Jan. 1 to Feb. 28:				
Gross receipts	£762,600	£616,200	£146,400	....
Working expenses	620,700	602,700	18,000	....
Net profit	£141,900	£13,500	£128,400	....

GRAND TRUNK WESTERN RY. CO.

	1905.	1904.	Increase.	Decrease.
Revenue for Feb.:				
Gross receipts	£75,200	£62,200	£13,000	....
Working expenses	70,400	68,900	1,500	....
Net profit	£4,800(D)	£6,700	£11,500	....
Aggregate from Jan. 1 to Feb. 28:				
Gross receipts	£162,200	£145,700	£16,500	....
Working expenses	147,800	145,900	1,900	....
Net profit	£14,400	£200	£14,200	....

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.

	1905.	1904.	Increase.	Decrease.
Revenue for Feb.:				
Gross receipts	£18,700	£15,800	£2,900	....
Working expenses	17,200	16,800	400	....
Net profit	£1,500(D)	£1,000	£2,500	....

Aggregate from Jan. 1 to Feb. 28:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£44,810	£39,900	£4,910	....
Working expenses	35,200	33,400	1,800	....
Net profit	£9,600	£6,500	£3,110	....

TRAFFIC RECEIPTS OF THE SYSTEM.

	1905.	1904.	Increase.	Decrease.
Aggregate from Jan. 1 to Mar. 31:				
Grand Trunk..	£1,227,067	£1,047,854	£179,213	....
G. T. Western	268,330	244,087	24,252	....
D. G. H. & M.	72,660	54,500	18,160	....
Total	£1,568,075	£1,346,441	£221,634	....

Canadian Northern Ry. Earnings, etc.

Gross earnings for Feb., \$214,800; working expenses, \$154,600; net earnings, \$60,200 against \$175,100 gross; \$123,300 working expenses, and \$51,800 net for Feb., 1904. Gross earnings for eight months ended Feb. 28, \$2,577,500; net earnings \$871,600 against \$2,114,900 gross, and \$725,600 net for same period 1903-04. Mileage in operation 1,602 against 1,350 in Feb., 1904.

Approximate earnings for Mar., \$273,100 against \$201,900 for Mar., 1904.

Railway Taxation in Ontario.

During the session of 1903 the Ontario Legislature appointed a special committee for the purpose of considering and reporting upon the question of the taxation of railways. The commission, consisting of H. J. Pettypiece, then M.L.A.; Professor Shortt, and Judge Bell, held a number of sittings at which representatives of the railways presented their views on the subject of taxation; and the commissioners visited a number of places in the U.S. in order to gather information as to the principles of taxation adopted in the different states. The commission presented a lengthy report to the Legislature April 7. The present system of taxation levies a uniform rate of \$30 a mile on all roads in excess of 150 miles in length in the settled portions of the province, and \$15 a mile on the shorter lines. In lieu of this the commission suggests that a tax be levied on the gross earnings of the different railways in the province, and recommends a means for distributing the tax between the province and the various municipalities. "On the basis of gross earnings," the report sets forth, "the province would be able to determine the whole of the taxes which the railways and similar corporations should pay within its borders. The portion to be assessed on real estate would be determined locally as at present. Then by deducting from the total provincial taxes of each corporation the portion to be paid in the various municipalities the difference would represent the share of the provincial treasury." While the rate of 3% on gross earnings was suggested, the commission said: "It is, of course, a matter which can be adjusted from time to time to suit the increasing prosperity of the country and of the corporations." As a basis for determining the gross rental, the commission said: "The best opinion would favor some such arrangement as receipts from all traffic between terminals in Ontario to be assigned entirely in Ontario; receipts from an Ontario terminal and one outside in the proportion of the Ontario mileage to the whole haul; receipts from traffic passing through the province to be assigned to Ontario mileage to the whole haul. In which case some allowances might be made for terminal charges." The most effective method of administering the proposed system of corporate taxation, the commission pointed out, would be by the appointment of a Provincial Board of Taxation, to consist of three members, part of whose time only would be required, with a

permanent secretary and assistant to attend to the clerical details.

The report also sets forth that: "Inasmuch as the business of telegraph, express and sleeping car companies is so intimately associated with railway corporations, especially in Canada, and inasmuch as electrical railways are not only furnishing urban service but are extending throughout the country in competition with the regular steam roads, and are likely to be definitely extended in the future, it would be advisable to treat these corporations and doubtless several others upon the same basis as the railways, and to apply to them a tax on gross receipts with rates adjusted to their ability to pay."

The Canadian Westinghouse Co. has issued circulars on its Westinghouse switchboard indicating instruments, and its Westinghouse bi-polar motors, type B, for direct current circuits.

The Canadian Northern Ry. has opened its main line to the Elbow of the North Saskatchewan River, and freight and passenger trains are being run through from Port Arthur, Ont.

The Stovel Co., Winnipeg, has issued an excellent indexed vest pocket map of Manitoba which they say is the first map made in Canada by the wax process. It is well executed, and will be found convenient.

The Ontario Government has no intention of introducing a railway taxation bill during the present session. Taxation levied on railways will be, as a rule, shifted to their patrons, and the companies will become part of the taxing machinery. Multiplying taxations is the most popular economic folly.—Toronto Globe.

The bill to compel railways to reduce their fares to 2 cents a mile when the receipts amount to \$3,000 a mile, to 2½ cents a mile when the receipts are between \$2,000 and \$3,000 a mile, and restricting the fare to 3 cents a mile when the receipts are under \$2,000 a mile, has been withdrawn from the House of Commons by its promoter, W. F. Maclean, M.P.

The G.T.R. Literary and Scientific Institute, Montreal, has completed its 47th year. It has 612 members on its roll, and the attendance at classes during 1904 was 4,108, while 8,000 volumes were issued from the library. The library contains 7,593 volumes, and there are regularly received in the reading room 87 papers and magazines, many of them being of a technical character.

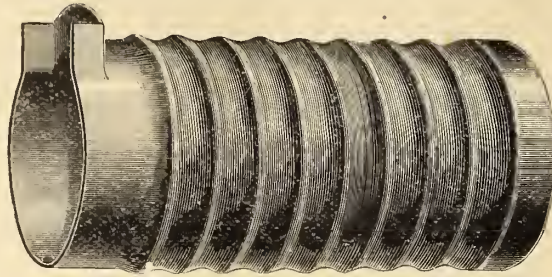
The Canadian Co-operative Co. has been incorporated under the Dominion Companies' Act, with a capital of \$20,000 and offices at Winnipeg, Man., to carry on buying and selling grain, constructing elevators, operating steam and other vessels, wharves, and purchasing and operating locomotives, cars and other rolling stock as may be necessary for the conduct of the business. C. H. Forester, J. McVicar, C. Brown, and G. A. Elliott, of Winnipeg, are the provisional directors.

The Robb-Mumford Boiler Co., of Amherst, N.S., has purchased the Charles River Iron Works, owned by Edward Kendall & Sons, of Cambridgeport, Mass., and will remove the business to South Framingham, Mass., where office quarters and a main shop 150 by 300 ft. are now being built on the line of the Boston & Albany Rd. The officers of the company will be: President, D. W. Robb; Secretary and Treasurer, G. W. Cole; General Manager, F. H. Keyes, and Superintendent, J. W. Wilde. The Kendalls will retire from business, and the new company will continue the manufacture of tubular boilers, in addition making a specialty of the Robb-Mumford internally fired boiler. The Robb-Mumford Boiler Co. is controlled by the same interests as the Robb Engineering Co. of Amherst.

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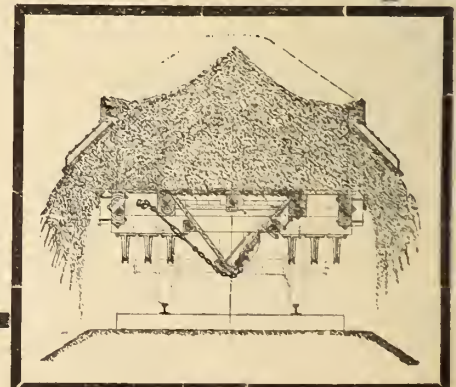
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Pintsch Gas Statistics.

The following figures show the application of Pintsch gas for lighting railway trains, buoys and beacons throughout the world, from which it will be seen there are 134,855 cars, 6,191 locomotives, 1,516 buoys and beacons, equipped with this system of lighting, and 364 special gas works fitted up to manufacture and compress the gas:

	Cars	Loco- motives.	Gas Works.	Buoys & Beacons
Germany.....	46,200	5,930	70	140
Denmark.....	45	.....	3	21
England.....	20,500	.....	80	280
France.....	8,000	.....	20	250
Holland.....	3,800	5	12	100
Italy.....	1,570	.....	5	20
Switzerland.....	410	2	1	.....
Austria.....	5,525	.....	15	5
Russia.....	4,000	170	22	30
Sweden.....	800	53	6	5
Servia.....	220	.....	1	.....
Turkey.....	120	.....	.....	.....
Bulgaria.....	117	.....	.....	.....
Egypt.....	200	.....	4	80
Canada.....	600	.....	4	243
Brazil.....	1,400	31	2	45
Argentina.....	1,200	.....	13	10
Chili.....	50	.....	2	.....
Australia.....	3,000	.....	10	40
India.....	11,600	.....	19	.....
United States.....	25,200	.....	71	208
Japan.....	150	.....	2	35
China.....	.....	.....	1	25
Mexico.....	150	.....	1	.....
Total.....	134,855	6,191	364	1,516

The Grand Trunk Pacific Railway.

The G.T. Pacific Ry. directorate, it would appear, is to be divided into two, the British members, who represent the G.T.R., forming a committee in England for the purpose of looking after the financing of the project, and the Canadian members of the board dealing with construction matters, etc. The question of the early starting of construction appears to be pretty definitely settled, from the announcement made by the President of the G.T.R. at the half-yearly meeting in London, Eng., April 13. He stated that a beginning would be made with construction at Fort William, Ont., on the Lake Superior branch in June, and with the Prairie section of the main line at Winnipeg, in July. At Fort William, where the Mission Island property has been secured for terminal purposes, an arrangement has been made whereby the town will give a bonus of \$250,000. Legislative sanction is being asked for this, and some opposition is being shown, particularly by Port Arthur, Ont., which claims not to have been treated fairly by the company. Nothing definite has been announced respecting the Winnipeg terminals, but it is stated that there is a strong probability of an arrangement being made with the Canadian Northern Ry. for the construction of joint terminals. An agreement has been made by which Edmonton, Alta., will give a subsidy in consideration of that town being made a divisional headquarters. The G.T. Pacific Ry. has acquired the charter of the Pacific Northern and Omineca Ry., and the charter rights and property of the Bulkley and Telkwa Valley Coal Co. The P.N. and O. Ry. has a charter to construct a railway from Kitamaat Inlet, by the most convenient route to Hazelton on the Skeena River, thence to Teslin or Atlin Lake, or both, on the northern boundary of B.C., also from Hazelton by the most feasible route via the Skeena, Babine, Driftwood, Omineca and Finlay Rivers to Peace River Pass, thence easterly to the eastern boundary of B.C., thence to Edmonton, Alta. The coal company's lands are about 17,000 acres in extent, and lie in the country to be opened up by the P.N. and O. Ry. Its charter was granted under the B.C. Companies' Act Mar. 16, the capital being \$1,000,000, and the head offices are at Victoria. It has very wide powers, covering some 50 or more different businesses, includ-

ing the building and operation of steam and other vessels, the construction and operation of telegraph and telephone lines, and similar allied businesses, and including such other businesses as paper makers, printers, publishers and newspaper proprietors.

The Division Engineers in charge of the G.T. Pacific surveys are: G. A. Knowlton, North Bay, Ont.; B. B. Kelliher, Winnipeg, Man.; and C. C. Van Arsdol, Edmonton, Alta. (April, pg. 153).

C.P.R. Betterments, Construction, Etc.

Bridge Renewals.—The Board of Railway Commissioners has approved the plans, etc., for the renewal of a large number of bridges at various points on each division.

Winnipeg Station.—The transfer of the office staffs into their offices in the new buildings was reported to have been completed by the middle of April. (April, pg. 151.)

Extension to Icelandic River.—It has been arranged to construct an extension of the Teulon or Winnipeg Beach branch to Icelandic River, about 30 miles; and W. Whyte, Second Vice-President, stated, Mar. 31, that about 16 miles would be completed this year. The extension will be completed in 1906.

Reston-Wolseley Line.—A contract has been let to J. D. McArthur, Winnipeg, for the construction of a line from Reston, Man., on the Arcola branch line, which now extends to Regina, Assa., to Wolseley, Assa., at mileage 1,728 on the transcontinental line. (April, pg. 151.)

Branch at Bienfait.—Authority has been given by the Railway Commissioners for the construction of a branch line from a point on the spur line already constructed, to section 19, tp. 2, range 6, west of the 2nd principal meridian. The extension will be 4.32 miles, and the length of the whole branch, 4.84 miles. (Nov., 1904, pg. 401.)

Victoria Hotel.—The contract for the construction of the hotel at Victoria, B.C., has been let to A. E. and R. Barrett, of Vancouver. The contract covers the superstructure only, the foundations having been put in under a separate contract. The price is said to be about \$500,000. Work was expected to be started by the end of April. The main floor will be 14 ft. above the level of the street and on it will be situated the offices, dining hall, 38 by 77 ft.; drawing room, 30 by 50 ft.; smoking room, 20 by 36 ft.; and palm room, 68 by 46 ft. The roof of the palm garden will be wholly of glass. The reception floor will have two approaches, the main entrance being at the southern end of the building. On the ground floor there will be the bar, kitchen and servants' quarters. The kitchen, 100 by 41 ft., will project beyond the main portion of the building toward Humboldt St. On a level with Government St. will be situated the grill room, fitted in old German style; billiard and sample rooms. Six stories of the hotel will be devoted to guest rooms, accommodation being arranged at present for over two hundred.

G.T.R. Betterments, Construction, Etc.

Kingston.—Surveys have been made with a view of bringing about the reduction of the grade between Kingston and Kingston Mills, Ont. In connection with this proposed work, a suggestion has been made that the city should offer a site for a station on condition that the main line should be taken into the city.

Bridge at Speed River.—The Railway Commissioners have approved plans for the reconstruction of the superstructure of the bridge over the Speed River at Guelph.

Sarnia Tunnel Electrification.—One of the features which has to be taken into account

in arranging plans for the adoption of electricity to haul the trains through the Sarnia Tunnel is the 2% grade each way. The proposition under consideration is to use 90 ton electric locomotives. F. Arnold of Chicago is the engineer who has been employed by the company in connection with the matter.

Track Elevation at Chicago.—The G.T.R. will this year commence track elevation at its connection with the Chicago and Western Indiana Rd., at Wallace and 49th streets, Chicago, Ill., and will continue the work westerly for about 2½ miles. The work will consist principally of earth embankments between streets, with bridges over 23 streets. The bridges will be of concrete, with steel superstructure. It is expected to have this work completed in 1906, at the same time as the Chicago and Western Indiana Rd., of which the G.T.R. is one of the owners, will have completed its track elevation.

ELECTRIC RAILWAYS.

Projects, Construction and Betterments.

Canada-Middlesex Ry.—Owing to the opposition of Brantford and St. Catharines interests the bill for the incorporation of this railway was withdrawn by its promoters from further consideration by the Railway Committee of the House of Commons. (April, pg. 161.)

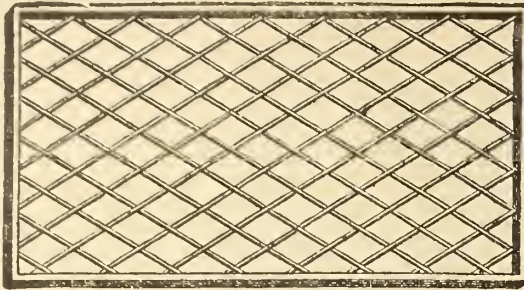
Edmonton Street Ry.—We are informed that it is expected to complete about five miles of line this year in Edmonton and Strathcona, Alta. The connection with the latter place depends entirely on the making of arrangements for crossing the bridge. The contract for the erection of the power house has been let to C. May, of Edmonton. The electrical equipment will be Westinghouse, and the steam equipment will consist of two cross tandem corliss engines and boilers. The contract calls for the opening of the line by Sept. It is possible that a further eight miles will be built, which will include an extension to St. Albert. J. H. Campbell is engineer in charge of construction. (April, pg. 161.)

Hamilton, Ancaster and Brantford Ry.—The agreement between the company and the Hamilton City Council provides for the construction of the line from Hamilton to Brantford, Ont., by Nov. 30, 1906, and for the charging of a mileage of \$300 a year until the line from Galt to Guelph is constructed. The company is said to have acquired practically the whole of the right of way required, and the promoters state that construction will be started shortly. (April, pg. 161.)

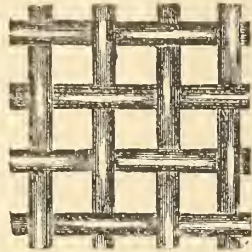
Niagara, St. Catharines and Toronto Ry.—When the matter of the extension of this company's line to Toronto came before the Railway Committee of the House of Commons, April 6, there was considerable discussion as to the proposed crossing of Burlington Beach. It was decided to take up the consideration of the Toronto and Hamilton Ry. bill, which proposes to carry its line across the beach also, at the same time. A number of the same people are financially interested in both projects. After a lot of discussion it was decided that an amendment should be inserted in the bills of both companies to the effect that the same right of way across the beach should be used by both companies, and that its location shall be subject to the approval of the Railway Commission. It was stated that the location of the track would be east of the G.T.R. tracks, that is on the lake side of the beach; and that the Minister of Railways and the Chief Engineer of the Board of Railway Commissioners had approved of the same. (April, pg. 161.)

Quebec Ry., Light and Power Co.—A proposal to construct a dam at the foot of the

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For C.P.R. or C.N.R. lands apply at the land offices of said railway companies.

For lands owned by private individuals apply to the various real estate agents in the city.

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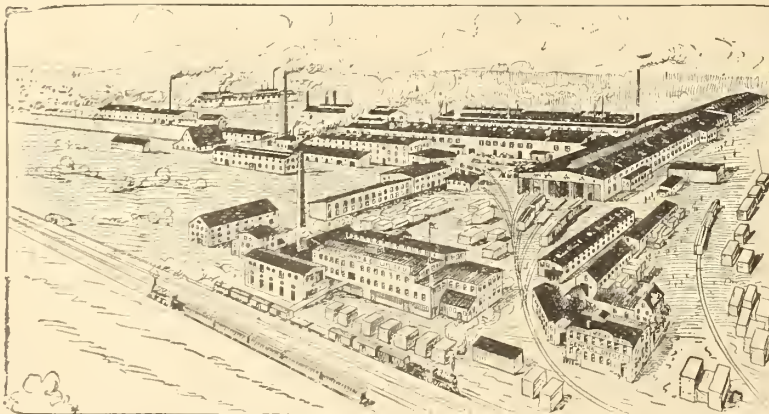
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natural steps on the Montmorency River, for the purpose of increasing the company's water power, and its storage area, has been approved. The dam will be 90 ft. in height, 12 ft. wide at the top, and 65 ft. at the bottom.

St. Catharines to Port Dover.—Application is being made at the current session of the Ontario Legislature for an act incorporating a company with this title to construct an electric railway from St. Catharines to Port Dover, via Dunnville, Ont. The promoters are:—W. J. Aikens, W. F. Haskins, Jas. Bolton, Dunnville, Ont.; J. S. Hamilton, W. G. Elliott, Brantford, Ont.; and N. B. Gash, Toronto.

Southwestern Traction Co.—The route which the company's cars will take over the lines of the corporation electric railway in St. Thomas, Ont., will be as near as possible through the centre of the city, 1½ miles of track being used. Connection will be made with the city lines near the Wabash-G.T.R. bridge, and the cars will pass all the railway stations. Arrangements have been made with the Yarmouth township council for a right of way over the roads from St. Thomas to Port Stanley. The company has secured a private right of way for a portion of the distance, so that it may not be necessary to use all the roadway granted. (April, pg. 161.)

Stratford to Grand Bend.—Application will be made at the current session of the Ontario Legislature for an act to incorporate a company to construct an electric railway from Stratford to Grand Bend, Ont.

Toronto and Hamilton Ry.—Tenders for the grading, culverts, masonry, bridges, and other work required for the construction of this line from Toronto to Niagara Falls, Ont., a distance of 80 miles, were recently invited to be sent in by May 1. The route of the proposed line starts near the intersection of Davenport Road and the C.P.R. track from Toronto to Toronto Junction, and runs westerly on the north side of and parallel to the C.P.R., and crossing the G.T.R. Toronto-North Bay line near Davenport Station; thence under the G.T.R. Toronto-Sarnia line and the C.P.R. Toronto-Owen Sound line, at the back of Toronto Junction, through Lambton Park, to the Humber River, near which the C.P.R. Toronto-Windsor line will be crossed. The course of the line to Islington will be parallel to the C.P.R., and from Islington it will run in practically a straight line to Burlington Beach, crossing the Humber, Mimico, Etobicoke, Port Credit, Oakville and Bronte ravines. From Burlington the line will likely be carried on the lake side of the G.T.R. line across the beach, thence in a straight line to the base of the Niagara escarpment at Vineland. Thence the line gradually ascends the slope of the escarpment, making the plateau at Dr. Alway's land, near Wolverton Mountain road at the west end of Grimsby, thence a straight line will be followed to the Electrical Development Co.'s power house in Queen Victoria Park, Niagara Falls. The company proposes to construct branches north and south of this line, but their routes have not yet been fully determined upon. The maximum gradient is 15 ft. to the mile, except for the section between the east end of Burlington Beach, and the summit of the escarpment, where the maximum gradient reaches 1% compensated. The total degrees of curvature on the 80 miles of line is small. The sharpest curve introduced at the mountain side does not exceed 4%.

While the gradients obtained are better than those of any existing line between Toronto and Niagara River, the cost of the works will be over the average of lines in Ontario, owing to the class of work contemplated and to the number of large bridges required at the various ravines mentioned,

together with lift bridges at the crossing of the canal at Burlington Beach, and at the crossing of the Welland canal at Thorold. In addition to this, owing to the physical character of the country and to the rapidity of the run off of the spring and torrential waters following heavy rains, the structures required for the passage of such occasional floods have to be larger than the average, and consequently more expensive. It is the intention of the company to have the work carried out in a first-class manner, with 80 lb. steel rails in main track supported by adequate fastenings, and the final ballasting will consist of broken stones, hence the dust feature, so objectionable to travellers on roads not so ballasted, will be eliminated.

The country to be passed through is thoroughly representative of old Ontario, with its diversified agricultural and horticultural interests, and stock farming. The "short hills" and ravines of Pelham present varied and interesting features, as they have been created by the denudation of the gravel and earthly deposits caused by the elements through a great many years.

We are advised that it is perhaps too soon to make reference to other works contemplated by the Power Co., in connection with the railway and its development, but it will be sufficient to state that if the plans at present under consideration are carried out in their entirety, the material prosperity of the district will be beneficially affected.

The works are under the supervision of W. T. Jennings, M.I.C.E., as Chief and Consulting Engineer, with H. A. Bruce, C.E. as Assistant Chief Engineer, in charge of the railway work. (April, pg. 161.)

See also Niagara, St. Catharines and Toronto Ry.

West Central Ry.—Application is being made at the current session of the Ontario Legislature for an act incorporating a company with this title to construct an electric railway from London eastwards to Guelph, Ont., passing through Embro, New Hamburg, Berlin, Preston, and Hespeler, with branches to Woodstock and Stratford, as well as others not specifically mentioned, not exceeding 12 miles in length. The promoters are A. T. Drummonds, H. M. Mowat, K.C., J. S. Davidson, Toronto; A. E. Welch, London, Ont.; W. D. Harris, Ottawa, and A. Hickling, of London, Eng. Several of these are interested in the Southwestern Traction Co.

Winnipeg Street Ry.—The extensions which the directors have authorized to be made during the current year are:—Extension of track from Maryland bridge to the new suburban park on the south side of the Assiniboine River, about 2 miles; extension of the tracks on Logan Ave., from Neva St. for a mile westerly; and the construction of two miles of track in the municipality of Kildonan. A new sub-station is to be constructed and electrical machinery installed for the water power terminal. It has also been decided to install three 500 h.p. boilers, and one 1,500 h.p. cross compound engine, direct connected to an 850 k.w. alternating generator to the power house.

Electric Ry. Finance, Meetings, Etc.

British Columbia Electric Ry.—Railway earnings for Feb.:—Vancouver, \$16,877; Victoria, \$9,887; Westminster, \$9,383; total, \$36,147, against \$31,463 for Feb., 1904; total railway and lighting earnings, \$73,038, against \$65,145. Working expenses, \$11,295; renewal funds, \$6,695; net income, \$25,048, against \$38,903; renewal funds, \$5,988; net income, \$20,554 for Feb., 1905. Net earnings for seven months ended Feb. 28, \$616,987, against \$552,984 for same period, 1903-04.

Halifax Electric Tramway Co.—Railway earnings for Mar., \$9,321.56, against \$11,151.74 for Feb., 1904.

The Nova Scotia Legislature at its current session passed an act amending in several particulars the company's act of incorporation, and the several acts amending the same.

The company is applying to the city council with a view to having a rearrangement of its assessment. The company asserts that it is being taxed at a much higher rate than any other electric railway or company owning similar franchises in Canada. The property assessed was valued at \$300,900 for 1904, and at \$426,000 for 1905, and the taxes for 1905 are \$15,009.38, against \$12,780.40 for 1904.

Kingston, Portsmouth and Cataraqui Ry.—The Kingston City Council engaged a special accountant to examine the company's books with a view of considering the question of the city taking over the line. The report presented April 4, showed that in addition to the present outstanding bond issue of \$200,000, there were outstanding liabilities of \$80,000. No interest had been paid on the bonds. The total capital invested was stated to be \$215,000. The council decided not to grant any concessions to the company pending the arrangement of its various entanglements. It is expected that the bondholders will arrange to have the line sold, as the council, at its last meeting, declined to purchase the line.

Levis County Ry.—A. E. Scott, who was formerly Secretary of the company, has been appointed sequestrator. It is understood that — Morse will be retained as Manager. Press reports state that there are a number of questions connected with the finances of the company which will have to come before the courts for adjustment.

Montreal Street Ry.—Passenger earnings for Mar., \$206,725.81; total earnings \$209,231.38, against \$183,689.49, and \$184,857.95 for Mar., 1904. Operating expenses, \$159,004.36; fixed charges, \$22,645.77; surplus, \$27,581.25, against \$148,075.81, \$19,809.32 and \$16,972.82, respectively, for Mar., 1904. Net earnings for six months ended Mar. 31, \$375,562.61; fixed charges, \$118,451.08, against \$356,345.89 and \$105,597.77, respectively, for same period 1903-04.

Toronto Ry.—Car earnings for Mar., \$207,013.73, against \$183,643.18, making for three months ended Mar. 28, \$589,360.79, against \$532,907.43 for same period 1904.

Electric Railway Notes.

The Winnipeg Street Ry. is adding 14 new double truck closed motor cars to its rolling stock.

The London, Ont., City Council is considering a proposal to call upon the Street Ry. Co. to run all-night cars on its lines.

The Edmonton Street Ry. has purchased three motor cars in St. Louis, Mo., and will probably require further equipment at an early date.

A Vancouver dispatch says that J. Bmtzen, General Manager B.C. Electric Ry. Co., has been appointed Managing Director with headquarters in London, Eng., and that he will spend three months each year in B.C., also that R. H. Sperling, General Superintendent, will succeed him as General Manager.

The equipment of the Lulu Island Ry., when it is taken over from the C.P.R. by the British Columbia Electric Ry. in July, will be operated as an electric railway by motor cars. We are informed that an electric locomotive, which it was originally stated might be adopted for freight traffic, will not be required.

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The Commissioners of the Queen Victoria Park, Niagara Falls, in their 19th annual report state that they receive \$10,000 a year as rental for the electric railway through the park, and that the total amount received on this account to Dec. 31, 1904, has been \$132,500. The Commissioners have control of 787 acres of park lands, of which 145 acres had been purchased, 20 acres being for the right of way of the electric railways. This 20 acres, together with the use of sufficient water from the river to furnish power, was granted to the railway company at a rental of \$10,000 a year.

Grain Elevator Notes.

The construction of the G.T.R. grain elevator at Windmill Point, Montreal, is being progressed with rapidly, and it is expected to have it completed and ready for the handling of the 1905 crop.

The C.P.R. elevators at Owen Sound are being repaired and strengthened. The work includes putting new stayrods in the bins, putting bracing timbers in the marine leg, and re-roofing elevator B.

At the recent annual meeting of the Goderich Elevator and Transit Co., a dividend of 6%, together with a bonus of 3%, was declared on the earnings for 1904. The retiring directors were re-elected. J. I. A. Hunt, President, and the other officers were re-elected.

J. J. Daly, President Collingwood Elevator Co., on returning to Collingwood, Ont., Apr. 8, stated that all arrangements, financial and otherwise, had been made for the construction of the proposed new elevator, that a contract had been placed with a Buffalo, N.Y., firm, and that construction would be started at once. Concrete will be the material used in building the elevator, which will be equipped with the most modern machinery.

SHIPPING MATTERS.

River and Lake Officers for 1905.

The following appointments have been made by navigation companies engaging in the St. Lawrence River and Great Lakes trades for 1905, in addition to those given in our April issue. In the first column is given the name of the vessel, in the second that of the captain and in the third that of the chief engineer:

DESERONTO NAVIGATION CO., DESERONTO, ONT.

Arctic	W. J. Daly	T. Timlin
Armenia	A. Barnhardt	M. Toppings
Deseronto	M. Palmateer	S. Larue
Ella Ross	D. B. Christie	M. J. McFaul
Ranger	H. Burnip	W. Stanhope
Recruit	D. McVicker	N. Kellar
Reliance	J. Dougherty	J. Toppings
Rescue	T. Lynch	O. Flood
Resolute	J. Gowan	J. Harrison
Valeria	J. Dix	M. Toppings

GREAT LAKES AND ST. LAWRENCE TRANSPORTATION CO., MONTREAL.

A. D. Davidson	H. J. Hagan	W. N. Newcomb
A. M. Marshall	J. Duncanson	G. McMonagle
Geo. C. Howe	F. Pratt	J. H. Norton
H. G. Dalton	W. D. Waite	G. L. Barnhart
Jno. Lambert	R. Gleason	W. T. Riley
John Crerar	A. Craigie	J. Bustead
John Sharples	J. F. Gates	L. W. Griggs
J. S. Keefe	D. Barry	G. Winters
Robt. Wallace	D. A. Keah	G. E. Willard
S. N. Parent	J. W. Goodridge	J. W. Drysdale

HAMILTON STEAMBOAT CO., HAMILTON, ONT.

Modjeska	P. Walsh	Wm. Noonan
Macassa	R. Cooney	O. Flumerfelt

LAKE ONTARIO AND BAY OF QUINTE STEAMBOAT CO., KINGSTON, ONT.

Aletha	J. A. Roys	D. McSorley
Caspian	W. Bloomfield	O. J. Hickey
North King	J. Jarrell	

MERCHANTS' TRANSPORTATION CO., MONTREAL.

Cuba	A. Montpetit	E. Hamelin
Melbourne	H. Vaughn	J. Belanger

MONTREAL AND LAKE ERIE STEAMSHIP CO., TORONTO.

City of Montreal	A. Lefebvre	F. Hamelin
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MONTREAL TRANSPORTATION CO., KINGSTON, ONT.

Advance	J. Doyle	W. Spencer
Bothnia	Jos. Murray	G. Hazlett
D. G. Thompson	Jos. Murray	G. Boyd
Emerson	Jas. Murray	G. Henderson
Fairmount	P. C. Telfer	W. Newbold
Rosemount	J. Wood	R. Taylor
Westmount	A. Milligan	K. Richardson

NIAGARA, ST. CATHARINES AND TORONTO NAVIGATION CO., ST. CATHARINES, ONT.

Garden City	D. Enright	J. H. Brown
Lakeside	N. J. Wright	T. Crossley

ONTARIO AND QUEBEC NAVIGATION CO., PICTON, ONT.

Aberdeen	M. Hicks	G. Geron
Alexandria	E. B. Smith	J. S. Milne
Lloyd S. Porter	M. Heffernan	L. Smith
Niagara	C. A. McWilliams	P. Davis
Water Lily	W. Dulmage	

RIDEAU LAKES NAVIGATION CO., KINGSTON, ONT.

Rideau King	E. Fleming	T. Simmons
Rideau Queen	W. Fleming	Jos. Noonan

ST. LAWRENCE RIVER STEAMBOAT CO.

America	J. F. Allen	J. Gillie
Jessie Bain	Not appointed	
Perrepoint		

THOUSAND ISLANDS STEAMBOAT CO., CAPE VINCENT, N.Y.

Islander	C. H. Kendall	
New Island Wanderer	W. C. Hudson	N. Larson
Ramona	J. Bertrand	L. Nosworthy
St. Lawrence	M. D. Estes	B. Farrell

TURBINE STEAMSHIP CO., HAMILTON, ONT.

Turbina	B. W. Bougard	A. White
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RICHELIEU AND ONTARIO NAVIGATION CO., MONTREAL.

Beaupre	C. Mongeau	F. Lacroix
Belleville	J. McGrath	W. S. Parker
Berthier	A. Robillard	E. Dennis
Boucherville	J. E. Brossard	A. Crepeau
Brockville	C. J. Hinchley	Jos. Conlin
Chicoutimi		G. Gendron
Cornwall		C. Gendron
Fire Fly	F. Crepeau	A. Gendron
Hamilton	J. F. Stephenson	B. Pintal
Hosanna	J. Gouin	J. St. Michel
Kingston	H. Esford	A. R. Milne
Laprairie	P. McLean	C. Hamel
Longueuil	H. Manderville	
Montreal	F. H. Lafrance	Geo. Gendron
Murray Bay	A. Fortin	N. Beaudoin
Picton	D. Mills	A. Desmartigny
Prescott	A. Dunlop	G. Gendron
Quebec	L. O. Boucher	— Guertin
St. Irence	C. Gouin	J. Hamelin
Tadousac	J. Dugal	M. Latulippe
Three Rivers		J. Matte
Terrebonne	C. Laviolette	E. Beaucage
Toronto	E. A. Booth, Jr.	W. A. Black
Varenes	J. Foubert	

It is expected that the arrangement for a steamship service on the Atlantic Ocean, between Canada and Mexico, will shortly be arranged for, the Mexican Government having practically agreed that the steamers may call at Cuban ports en route. The contract will probably be arranged with the Elder-Dempster Co.

The steamboat engineers of the Pacific coast are petitioning the Dominion Parliament to amend the Steamboat Inspection Act so that aliens shall be required to reside in Canada three years before being granted engineers' certificates. At present U. S. engineers can obtain positions on Canadian vessels immediately on passing the necessary examination, whilst Canadian engineers going to reside in the U. S. have to wait three years before they can qualify.

The Dominion Parliament has voted \$55,000, in addition to \$30,000 voted in 1904, for the construction of a new steamer for the quarantine station at Grosse Isle, Que. The steamer is being built by the Bertram Engine Co., Toronto, the contract price being \$83,000. According to information given in the House of Commons tenders were asked from four or five shipbuilders in Canada, and two in Scotland. The Polson Iron Works, Toronto, and the Collingwood Shipbuilding Co., each bid \$110,000; the Bertram Engine Works, Toronto, \$83,000, and the Scotch firms \$73,000 and \$67,000 respectively. In accepting a tender it was thought it would be fair to add 25% to the Scotch tenders to account for duty which the Canadian builders said they would have to pay on the material. This would make the accepted tender the lowest.

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ST. JOHN, N.B.	

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E. F. SEIXAS, Gen. Mgr., St. Catharines

treuil, Quebec and Three Rivers, in Quebec province: Toronto and Belleville in Ontario; and North Sydney and Pictou, in Nova Scotia. The number of members and the method of their election differs in each case, and only the members of the boards at Montreal and Quebec are remunerated. The number of members and method of election are: Montreal—six members, appointed by the Government; the Mayor ex-officio, and one each appointed by the Board of Trade, Corn Exchange Association, Chamber of Commerce and the shipping interests. Quebec—five members appointed by the Government, one each by the Board of Trade, the Levis Board of Trade, and two by the shipping interests; the chairman of the Corporation of Pilots being an ex-officio member in respect of pilotage matters. Toronto—two members appointed by the city council, and two by the Board of Trade, these four to elect a fifth. Belleville—the town council passes by-laws respecting the management of the harbor. Three Rivers—three members appointed by the Government; the Mayor and the President of the Board of Trade for the time being. North Sydney and Pictou—three members appointed by the Government.

Inspection of Steamships.

The Secretary of Commerce and Labor at Washington, D.C., issued instructions Mar. 25 to discontinue the collection of inspection fees from Canadian vessels plying to and from United States ports.

In pursuance of the promise which the Minister of Marine made to the deputation from the Dominion Marine Association which waited on him in Ottawa Mar. 23, he took up with the Secretary of Commerce and Labor for the United States the question of reciprocal steamboat inspection between Canada and the U.S., and asked 1st, whether if Canada were to grant an exemption to U.S. vessels from all inspection other than such as is necessary to determine that a vessel's condition is in accordance with the current certificate, the U.S. would on its part issue an order granting a similar exemption to Canadian vessels; and 2nd, whether a temporary arrangement could be arrived at covering only present Canadian equipment in case the permanent arrangement desired was necessarily delayed beyond the opening of the present season of navigation. It is understood that the Secretary of Commerce and Labor has replied through the usual diplomatic channel, answering the first question in the affirmative and the second in the negative, the negative reply being based on the ground that the exemption which can be allowed under the U.S. statute must cover the entire subject, and cannot be divided, and remarking that the Department of Commerce and Labor can at once take all necessary steps for complete exemption, and that this can be done just as promptly and readily as would be the case in making any partial exemption, supposing the latter to be legally possible. This question has already been handled with other countries in the following manner. As soon as a given country passes an order making such complete exemptions of U.S. vessels as above referred to, the Secretary of Commerce and Labor, on his own authority, issues an order making a like exemption of the vessels of that country. Accordingly if the Dominion Government will pass an order exempting U.S. vessels from inspection, a similar order will be passed at Washington. Up to the time of writing (April 20), we have not been advised of the passage of an order by the Ottawa Government, but there is every reason to hope that the matter will receive prompt attention.

[Late Note.—April 28—Since the above was

set in type, the Dominion Government has passed the necessary order-in-council.]

Steamships registered elsewhere than in Canada, but engaged in carrying freight only from one port to another in Canada, or on any of the lakes, rivers or coasts of Canada, which were exempted from inspection under the order of April 27, 1904, provided they had a certificate for the then current year from certain British and European insurance corporations, are now subject to inspection under the Canadian Act. The order of Dec. 29, 1904, to that effect also set forth that all tug boats or pleasure yachts, registered elsewhere than in Canada, but plying from one port or place in Canada to another, shall also be subject to the provisions of the Canadian Steamboat Inspection Act, to the same extent as Canadian registered vessels of the same description. In connection with this matter the Department of Marine has notified the Dominion Marine Association that so far as the future is concerned in regard to vessels not registered in Canada, but plying in Canadian waters, the construction of boilers will have to conform strictly to the conditions required by the Canadian rules. In the case of steamers falling under this heading, in which boilers have been installed with the sanction of the Canadian authorities, which are not in strict conformity with the Canadian requirements, the Chairman of the Board of Inspection has been notified to exercise the greatest care, and to give as much latitude as will be consistent with safety.

Notices to Mariners.

The Department of Marine has issued the following notices to mariners:

No. 14. Mar. 4.—Quebec—35. Gulf of St. Lawrence, Magdalen Islands, Entry Island, removal of light station. 36. River St. Lawrence, south shore, Ste. Felicite, geographical position of fog alarm.

No. 15. Mar. 7.—New Brunswick.—37. Chaleur Bay, Dalhousie harbor, Douglas or Dalhousie Island, removal of light station.

No. 16. Mar. 7.—Quebec—39. River St. Lawrence, below Quebec, Pointe aux Orignaux, lighthouse rebuilt.

No. 17. Mar. 10.—New Brunswick—40. St. John River, Belleisle Bay, Hatfield point, light improved. Nova Scotia—41. Bay of Fundy, northeast ledge bell buoy replaced in position.

No. 18. Mar. 11.—Nova Scotia—42. Cape Breton Island, east coast, Sydney harbor, west arm, range lights to be established.

No. 19. Mar. 21.—Prince Edward Island—43. North coast, Cape Tryon, lighthouse established.

No. 20. Mar. 21.—British Columbia—44. Chatlam Sound, Inskip passage, Port Simpson entrance, Birnie island, arc of visibility of light. Alaska—45. Cook inlet approach, reefs reported.

No. 21. Mar. 23.—Ontario—47. Lake Ontario, Toronto, east gap, fog alarm established. 48. Lake Ontario, Toronto harbor, Gibraltar point, fog alarm permanently discontinued. 49. Lake Huron, north channel, Blind River, changes in range lights.

No. 22. Mar. 24.—Nova Scotia—50. South coast, off entrance to Shelburne harbor, whistling buoy established.

No. 23. April 4.—Quebec—52. River St. Lawrence, submarine bell established at Red Island lightship. 53. River St. Lawrence, mouth of Saguenay River, Prince shoal, gas buoy replaced by lightship, submarine bell. 54. River St. Lawrence, submarine bell established at White Island reef lightship.

No. 24. April 5.—Ontario Lighthouse division—55. River St. Lawrence, Lake St. Louis, Lachine lightship replaced temporarily by gas buoy.

Maritime Provinces and Newfoundland.

K. A. Barber has been appointed a measuring surveyor of shipping for the port of St. John, N.B.

Chief Engineer Smyth, of the cable repair str. Minia, has been appointed Inspector of the Dominion Government steamers, succeeding the late D. Stevens.

A bill to incorporate the Bear River Steamship Co., to operate steamers on Bear River and elsewhere, has been given a second reading by the Nova Scotia House of Assembly.

Tenders were received to April 15 by the Department of Trade and Commerce, for a steamship service between Prince Edward Island, Cape Breton and Newfoundland, and from Bridgetown and Cardigan Bridge, P.E.I., connecting at Pictou, N.S., with the Newfoundland service.

The proposition which Capt. J. A. Farquhar, of Halifax, has submitted to the North Sydney, N.S., town council for the construction of a dry dock at that place, calls for the expenditure of \$250,000 on the dock, and the fitting up of repair shops, and the town is asked to grant exemption from taxation and to vote a bonus of \$2,500 a year for 15 years. Capt. Farquhar stated that negotiations were going on with the Dominion Government, with a view of obtaining a subsidy towards the construction of the dock, and to provide for the maintenance of a wrecking steamer and plant at North Sydney.

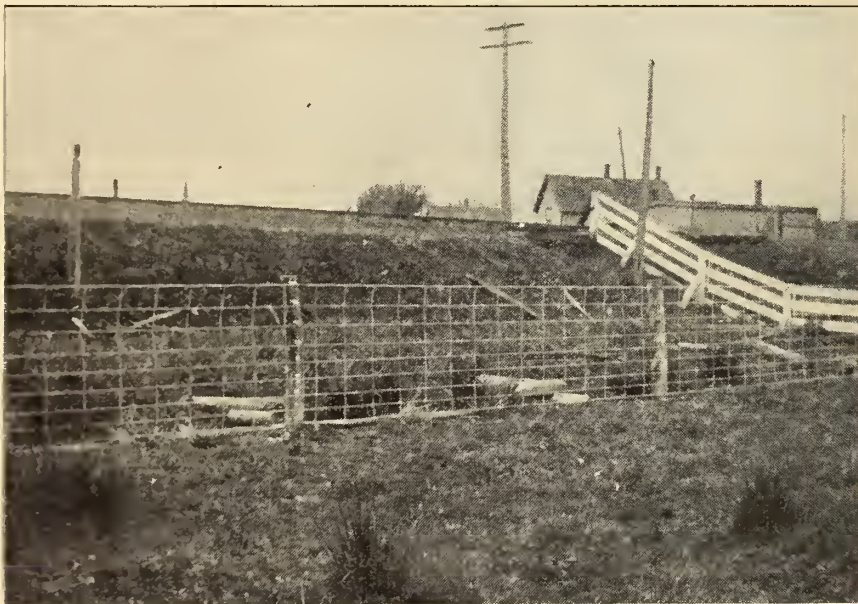
Sir Thos. G. Shaughnessy, President C.P.R., in writing to G. Robertson, President of the Imperial Dry Dock, St. John, N.B., recently stated that the present facilities at that port are absolutely inadequate for the tonnage now passing through it, and any probability of increasing the tonnage is out of the question until additional accommodation has been provided. In the face of obstacles of every description, and at a cost he would not like to mention, the C.P.R. had made a determined effort to establish St. John as a winter port for the traffic originating on the 12,000 miles of line it owned and controlled, but the result had been far from gratifying. The C.P.R., to strengthen its hands, had acquired a large fleet of ocean steamers, but there was not wharfage accommodation at St. John sufficient for them unless other steamers were crowded out. The company was now having built two passenger steamers for the route, but there was not a wharf at St. John where these steamers could land passengers and cargo, and the company would therefore be compelled to run them elsewhere after the close of the St. Lawrence season of navigation. It was no part of the duty of the C.P.R. to improve the harbor or build wharves at St. John. It would not be unreasonable to ask the company to provide yards, cattle pens, freight sheds, etc., for the interchange of traffic between the trains and the steamers, or if this be made part of a general scheme of improvement at the port, to pay a fair rent for the same, but beyond that the company would not go. The works necessary were essentially public works, and do not come within the province of an individual railway company. In conclusion, Sir Thomas said: "This subject has been causing our directors and officers a good deal of anxiety, and we all hope some earnest and energetic movement can be started to secure what is so badly wanted within the next year or eighteen months. The present conditions are intolerable, not because the city of St. John has failed to do what it could for the advantage of the port, but because the expenditure involved in the equipment of a national port is much larger than a city with St. John's resources could prudently undertake."

Companies have been formed in New Glasgow, N.S., to take over the strs. Wabis and Wasis, chartered to the Nova Scotia Steel Co.



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Province of Quebec Shipping

P. A. Drolet and J. L. Fortin have been appointed Harbor Commissioners for Three Rivers, Que.

The railway and steamboat companies at Montreal are urging the Montreal Harbor Commissioners to build a bridge across the wharves near the landing place of the ferry steamer from St. Helen's Island.

Meldrum Brothers is the title of a company incorporated under the Dominion Companies' Act with a capital of \$250,000 and offices at Montreal, to carry on a general forwarding business, and in connection therewith to own and operate tugs and barges.

The saloon of the Richelieu and Ontario Navigation Co.'s new str. Montreal has been most elaborately decorated; the decorations including two large allegorical paintings, "The Day from Dawn to Night-time," and "The Sunset Hours, Twilight and Night," by F. S. Challenger, Royal Canadian Academy.

The Montreal City Council has approved of a contract with L. Langlois for a ferry service between Montreal and St. Helen's Island at the same fares as heretofore, the contract to run for five years. It has been arranged to put the steamer St. Laurent on the service, and to have an additional steamer on holidays and special occasions.

The icebreaking str. Montcalm was kept at work off and on for several months trying to prevent the formation of the ice bridge at Cap Rouge, Que., but without effect. The result of the winter's work has shown that other means will have to be employed to keep the river open at this point. Before she gave up work for the season, she was closed in by the ice at Cap Rouge, where she was held for several days.

The Public Accounts Committee of the House of Commons is investigating the cause of the explosion of the boiler of the dredge J. I. Tarte. The Government engineer expressed the opinion that the explosion was caused by negligence in letting the water get too low in the boiler, and stated that the boilers had been properly constructed. The dredge and its equipment were constructed at the Polson Iron Works, Toronto.

The Dominion Government str. Montcalm has been fitted with wireless telegraph apparatus, and has been placed in the Gulf of St. Lawrence to cruise between certain defined points, and report the condition of the ice to the shore stations and incoming vessels. This was arranged for through the Shipping Federation of Canada, which has also arranged for the usual daily reports of the ice conditions from the respective signal stations in the gulf and the St. Lawrence River, to be tabulated and available at Montreal, Quebec, Louisburg, and Sydney, until the gulf is clear of ice.

Ontario and the Great Lakes.

The Kelso Fish Co. has had a steam tug built at Rat Portage, Ont., for its trade on Eagle Lake.

The Niagara Navigation Co. will probably issue some bonds and a limited amount of new stock in connection with the building of the additional steamship it has ordered.

The Rideau Lakes Navigation Co.'s steamers, during the season, opening May 1, will connect with the New York Central and Hudson River Rd.'s trains at Clayton, N.Y.

The str. Turbinia has been placed on the dry dock at Kingston, Ont., to be cleaned and repainted, and to have other work done, prior to going on the run between Hamilton and Toronto early in May.

A deputation from the Dominion Marine

Association had an interview in Toronto recently with W. Whyte, Second Vice-President of the C.P.R., with a view of securing greater accuracy and dispatch in loading grain at the Fort William and Port Arthur elevators.

The Lakeside, which sank at her moorings at Port Dalhousie, Ont., Mar. 24, owing to the leaving open of a seacock, has been in no way injured, and was raised so as to steam to Toronto Mar. 28. She commenced making her regular trips between Toronto and St. Catharines April 10.

F. E. Hall and Co. (Ltd.), of L'Original, Ont., has purchased the steam barge Isaac Lincoln, about 150 ft. over all, 30 ft. beam, and 12 ft. depth of hold, and also her consort Robinson, a tow barge. They will trade between Georgian Bay points and Oswego and Ogdensburg, N.Y., with lumber.

The C.P.R. Upper Lake steamers will not call at Sault Ste. Marie, Mich., in future, except in the event of the Canadian canal being unavailable on any particular trip. The fact that the company's steamers did not call on the Ontario side of the river, was a general source of regret to Canadians for some years past.

The Dominion Government is reported to have purchased the str. Manitou from the United States and Dominion Transportation Co., for the further prosecution of the hydrographic survey of Lake Superior. The Bayfield (formerly the Lord Stanley), hitherto in the service, has been ordered to Hudson Bay for similar work there.

The McIlwraith wharf at Hamilton, Ont., has been purchased by a Toronto syndicate headed by F. Nicholls, but nothing has been settled as to the use to which it is to be put. The syndicate referred to is the same one that has purchased the Niagara, St. Catharines and Toronto Ry., and the Niagara, St. Catharines and Toronto Navigation Co.

The str. Lincoln, which was undergoing repairs at Amherstburg, Ont., after having been considerably damaged by ice, was completely burned April 8. She was formerly known as the Greyhound, and plied on various routes out of Toronto. In 1901 she was removed from Lake Ontario, and up to the end of last season ran between Pelee Island and mainland points.

The Thunder Bay Contracting Co. has been incorporated under the Ontario Companies' Act for the purpose of carrying on a general dredging, towing, wrecking and salvage business, and to construct docks, wharves and other harbor works. The capital is fixed at \$50,000, the offices are at Port Arthur, Ont., the provisional directors being:—W. F. Langworthy, A. J. McComber, T. Fisher, G. F. Whalen, G. H. Rapsey, of Port Arthur.

The Montreal and Lake Erie Navigation Co. is the title of the company which has purchased the str. China from the United States owners. She will be managed by C. A. Jaques, of Montreal. Before going on her route she will be thoroughly overhauled and fitted with new engines and boiler. The work will be done by the Bertram Engine Works Co., Toronto. The steamer will be named City of Montreal on being given a Canadian registry.

A large piece of steel has been found upon the mitre sill of lock 1, Welland Canal, evidently from the bottom of a vessel, and it is suggested that it had been torn from the Bannockburn, which was lost in the fall of 1903 on Lake Superior. The theory is that the piece of steel was torn from her hull when going through the lock on her last trip, and that she proceeded on until the rough seas pounded through the living, completely engulfing and sinking her.

The steamers of the Canadian Lake and Ocean Navigation Co., which will be operated

during the season by the Montreal and Lake Superior Line, will be the A. E. Ames, H. M. Pellatt, and J. H. Plummer, between Montreal Que., and Port Arthur, Ont. The Turret Court, Turret Chief and Turret Cape, will carry freight from Port Arthur to any port offering; and the steamer Scottish Hero has been chartered to the Dominion Steel Co. for its trade between Sydney, N.S., and Montreal.

A press report recently stated the Parry Sound Lumber Co.'s str. Seguin had been purchased by the Department of Marine for use as a lighthouse and buoy tender on the Great Lakes, and that to fit her for the new service a cabin would be built from the stern for about two-thirds of the vessel's length, and on the fore part of the deck a crane for handling the buoys, etc., will be provided. Replying to a question in the House of Commons, April 4, the Minister of Marine stated that the steamer had not been purchased. It is believed, however, that the purchase will be made.

The Ontario and Quebec Navigation Co., recently formed with head office at Picton, Ont., will take over the following vessels:—Str. Alexandria, operating in the freight and passenger business from Olcott Beach and Charlotte, N.Y., to Montreal and Quebec, via the Bay of Quinte and St. Lawrence River; str. Niagara, operating in the excursion business on the Bay of Quinte; str. Lloyd S. Porter and consort Isabella Reid, capacity 2,000 tons; str. Aberdeen and consort Rob Roy, capacity 1,200 tons; str. Water Lily, capacity 200 tons. The last five are exclusively freight boats. B. R. Hepburn is General Manager, and J. de C. Hepburn, General Freight and Passenger Agent.

The Lake Carriers' Association of the U.S. engaged the big str. Algolah, owned by L. R. Boynton, St. Ignace, Mich., to open up the channel at the Straits of Mackinac, and subsequently she opened up the channel in Whitefish Bay, at the Lake Superior end of St. Mary's River. In connection with this work the Department of Marine was urged by the Boards of Trade of Port Arthur and Fort William to engage the Algolah to aid in opening navigation to these ports. It is hoped tugs will be employed next fall to keep the ice open and lengthen the season of navigation at Port Arthur and Fort William, and that similar means will be adopted there each fall and spring in future.

Our Winnipeg correspondent wrote on Apr. 15: "While the stocks of wheat, etc., at the Canadian head of the lakes were larger at the opening this season than last, owing to the unsatisfactory state of the wheat market, the movement east lacked the usual rush for this season of the year, and until the price, either up or down, takes a decided change, the movement will continue in the present unsatisfactory condition. For the opening some 18 bulk carriers were chartered at 2c. to Georgian Bay or Lake Huron ports, and 6c. to Montreal, in the latter case marine insurance being included, which is a decidedly new feature in shipping circles. Several large contracts for the movement of steel rails both from Sault Ste. Marie and from Montreal are reported, and this class of business will keep a number of vessels busy during the entire season."

An order has been placed by R. O. and A. B. Mackay, of Hamilton, Ont., on behalf of themselves and associates, with the Caledon Shipbuilding Co., Dundee, Scotland, for a steel screw package freight steamer having the following dimensions: length, 257 ft.; breadth, 43½ ft.; depth, 26½ ft. She will be fitted with triple expansion engines, cylinders 19½, 33 and 54 in. diameter, by 36 in. stroke, to which steam will be supplied by two boilers, 14½ ft. by 11 ft., at a pressure of

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160 Acres at \$3.00 per acre, cash payment \$71.00, first year's interest \$24.49 and nine instalments of \$60.00	
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" " 4.00 " " 95.85, " " 32.64 " "	80.00
" " 4.50 " " 107.85, " " 36.73 " "	90.00
" " 5.00 " " 119.85, " " 40.81 " "	100.00
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Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

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180 lbs. Three gangways will be provided for loading and unloading of package freight, and she will have a cargo capacity of 70,000 bush. on a 14 ft. draught, and 120,000 bush. on a draught of 19½ ft. Her speed on a 20 ft. draught will be 10 knots an hour. She will be operated by the Montreal and Lake Superior Line, between Montreal and Port Arthur and Fort William, Ont. She is expected to be on the route about Sept.

The Hamilton Steamboat Co.'s str. *Modjeska*, which has undergone an overhaul during the winter at the Bertram Engine Works Co.'s yard, was given a trial trip April 6, when about a hundred representatives of marine and other interests were invited. The principal alteration in the steamer has been the addition of an upper or promenade deck, and a bridge. The engines have been overhauled and a good deal of redecorative work done. On the same day the company's str. *Macassa* was launched at Collingwood, Ont., where she had been lengthened. The *Macassa* was placed in dry dock where she was cut in two amidships, and a new section 24 ft. in length has been added. New boilers are to be installed, and the whole of the internal accommodation is to be rearranged. The *Modjeska* took up her route, making one trip a day each way between Hamilton and Toronto, April 8; and the *Macassa* is expected to be on the route by the end of May.

The Collingwood Shipbuilding Co. (Ltd.) has been incorporated under the Ontario Companies' Act, with a capital of \$1,000,000 and offices at Collingwood, Ont., for the purpose of carrying on a shipbuilding and repairing business, to construct wharves, tunnels, bridges and other works; to operate steamships and sailing vessels, and to engage in wrecking and salvaging services. The company will take over the business, assets and franchises of the Collingwood Shipbuilding Co., at present carrying on business there, and proposes to pay therefor by the issue of paid-up stock of the new company. The provisional directors are: Thos. Long, H. S. Osler, W. B. Raymond, D. L. McCarthy, M.P.; B. Osler, F. Ford, G. C. Loveys, J. M. Ewing and H. Spence. The original company erected a large plant at Collingwood, and built several steamers in 1901-02, but has done little beyond repair work since. No dividend was paid for 1903, and the annual meeting for 1904 was postponed from time to time pending the organization of the new company.

The steamers to be engaged in the package freight line operated by the Montreal and Lake Superior Line, between Montreal and Port Arthur and Fort William, Ont., calling at intermediate points, will be the same as last year, viz.: A. E. Ames, J. H. Plummer, H. M. Pellatt, of the Canadian Lake and Ocean Navigation Co.; Neepawa and Waucondah, of the New Ontario Steamship Co.; and the *Arabian*, owned by J. B. Fairgrieve and Co., Hamilton, Ont. The officers of the line for the season will be: A. Cowan, Traffic Manager, Hamilton; H. W. Cowan, who was city freight agent at Toronto last year, will be attached to the Hamilton office; G. A. Perry, formerly with the Toronto, Hamilton, and Buffalo Ry., will be contracting freight agent at Toronto; J. L. Wilkie will be wharf agent at Toronto; F. A. McGee, heretofore soliciting freight agent at Montreal, will be travelling freight agent for Western Ontario, with headquarters at Hamilton; W. Askin will be commercial agent at Montreal; M. J. Quinn, city freight agent at Montreal; J. McLerie, Northwest agent at Winnipeg, Man., and F. T. Somerville general agent for Port Arthur and Fort William, with headquarters at Port Arthur.

The Northern Navigation Co.'s fleet have all undergone a general overhaul preparatory to going on their routes for the season. The steamer *Majestic* is having two new arches,

which will greatly strengthen her, and make her a first-class steamer in every respect. The steamer *Midland* has been refitted, her cabins renewed, and new arches put in. The changes on the *United Empire* are sufficiently extensive to warrant a change in name, and she will be known in future as the *Saronic*. Among the alterations made are a new general saloon 40 ft. in length and 15 ft. wide, fitted with plate glass windows 4 ft. square, which will give passengers an opportunity of viewing the scenery in cold weather without having to go outside; the kitchens, ice boxes and mess-rooms, which were formerly on the main deck, have been placed on the spar deck under the new turtle deck; she has also been fitted with engine telegraph, steam capstans and windlasses. The services arranged for include a tri-weekly between Sarnia and Port Arthur, Ont.; a weekly service between Sarnia, Ont., and Duluth, Minn.; a tri-weekly service between Collingwood and Owen Sound and Sault Ste. Marie, Ont.; a bi-weekly service between Collingwood, Parry Sound and French River, Ont., and a daily service between Penetanguishene and Parry Sound, Ont.

The application made by H. C. Spaulding, New York; T. W. Hugo, Duluth, Minn.; T. Burnham, Chicago, Ill.; J. I. Davidson, P. Howland, R. C. Steele, A. T. Drummond, of Toronto, at the current session of the Dominion Parliament, for an act incorporating a company with the title of the Canadian Canals Corporation, has been rejected. It was proposed that the capital be \$15,000,000, the object being to construct and operate navigable waterways, with or without portage railways, from a point on the Georgian Bay between Waubashene and Port Severn, or on Nottawasaga Bay to Lake Simcoe, and thence to Lake Ontario, either in York or Ontario County; and secondly from Nottawasaga Bay, along Nottawasaga River to Lake Ontario in the County of York. In connection with the operation of the proposed canal and portage railways it was sought to obtain powers to acquire the patents granted to H. C. Spaulding for "new and useful appliances in transportation," and the Canadian rights for all improvements of the same. The canal was to be not less than 22 ft. deep, and there was to be a depth of not less than 21 ft. of water on the mitre sills of gates; and the width of the canals was to be not less than 125 ft., or more than 200 ft. at the bottom. Provision was to be made for charging tolls, and to enable the Government to expropriate upon giving six months' notice, at a value to be fixed by arbitration. In moving the second reading of the bill W. S. Calvert gave the following information: The canal is to commence on the Georgian Bay, and will cross over to Lake Simcoe, about 16 miles. Lake Simcoe is 131 ft. higher than Lake Huron, and it is intended to build a ship railway to raise the ships that 131 ft. Lake Simcoe is about 25 miles in length and it is proposed to build a canal about 99 miles in length and then another ship railway, which will be about 1½ miles in length. Lake Simcoe is 466 ft. higher than Lake Ontario and by these proportions of railways, together with the canal, it is expected to be able to connect the Georgian Bay with Lake Ontario, a distance of 72 miles. It is anticipated that it will save about 618 miles in a round trip. The cost is estimated to be about \$45,000,000.

The Allan Line str. *Victorian*, the first turbine trans-Atlantic liner, made an eventful voyage, in which she proved herself a steady and comfortable vessel. The engineering experts who accompanied her will report as to her performance on their return to England. The *Victorian's* sister-ship, the *Virginian*, also a turbine steamer, has made her maiden trip from Liverpool to Halifax, N.S.

Manitoba and the Northwest Territories.

The Dominion Government steamer *Bayfield*, heretofore engaged in the hydrographic survey of Lake Superior, has been ordered to go to Montreal, where she will be fitted to proceed to Hudson Bay for survey work there.

The Geographic Board for Canada has decided that the name *Hudson's Bay*, which has been used time out of mind to describe the great inland sea of Canada, shall no more be used, but that its name shall be *Hudson Bay*. This is in accordance with the rules adopted by the Board, which are based on those drawn up by the Royal Geographic Society in London, England, and which have been adopted by the United States Government.

The question of the extension of the boundary of Manitoba to Hudson Bay, which has been urged and which will come up for consideration shortly, is an important one from a navigation point of view. Manitoba claims that the development of a port on the Bay is necessary for the continued prosperity of the province, and that until there is such a port the river and lake navigation will be of little importance. Manitoba desires to have her boundaries extended to Fort Churchill, where there is a deep water harbor.

B.C. and Pacific Coast Shipping.

The pilotage authority for Vancouver is making an investigation with a view of revising the pilotage charges at that port.

The North Pacific Steamship Co. has been incorporated under the B.C. Companies' Act, with a capital of \$50,000 and offices at Victoria, B.C., to carry on a general navigation business.

The Vancouver, B.C., City Council has before it a proposal to guarantee for three years at 3%, bonds to the amount of \$800,000 for 20 years, to aid the construction of a dry dock at that port. The dock proposed would cost about \$1,060,000 and would be capable of taking in an 11,000 ton steamer. A ship-repairing plant would be established in connection with the dock.

The Union Steamship Co. has had built in Scotland a new steamer, named the *Camosun*, for the B.C. coast service. Her dimensions are: Length, 192 ft.; breadth, 35.1 ft.; depth, 14.7 ft. She is constructed of steel, and is fitted with a triple expansion engine, cylinders 18½ in., 30 in. and 50 in. diameter by 36 in. stroke, which is calculated to give a speed of 18 knots an hour.

The White Pass and Yukon Ry. has purchased the str. *Casca*, one of the independent steamers operated last year between White Horse and Dawson, by Ironside, Rannie and Campbell. The *Casca* was built at Victoria, B.C., in 1898, and is a side-wheel steamer, having engines of 17 n.h.p. Her dimensions are: Length, 110 ft.; breadth, 30.5 ft.; depth, 5 ft.; tonnage, gross, 590 tons; register 364 tons.

A contract has been placed at Vancouver, B.C., for the construction of a wooden steamer, having the following dimensions: Length, 170 ft. between perpendiculars; breadth, 36 ft.; depth, 13.5 ft. She will be fitted with high pressure compound surface condensing engines, with cylinders 18 and 48 in. diameter by 36 in. stroke; to which steam will be supplied by two boilers. The engine is calculated to develop 600 i.h.p., and to give a speed of 10 knots an hour. She will have a cargo carrying capacity of about 1,000 tons, and will have accommodation for a limited number of passengers.

The Merchants' Service Guild of Canada, Pacific Coast Division, has its headquarters at Victoria, and has branches at Vancouver, Nel-

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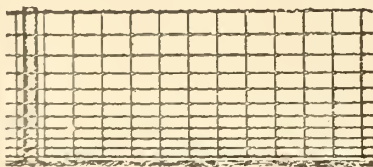
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son and Westminster, B.C., and at Whitehorse, Yukon Territory. The officers are:—President, Capt. W. Cox; First Vice-President, Capt. Thos. Brown; Second Vice-President, Capt. Geo. Robertson; Secretary-Treasurer, J. J. Martin. The Guild is endeavoring to secure the passing of an act providing for the taking of a poll on vessels when away from their home port on an election day; the master being the returning officer and the voters being members of the crew who are on the register of the electoral district of the home port of the vessel.

DOMINION MARINE ASSOCIATION.

The late date in March at which the annual meeting of the Association was held in Ottawa, prevented us from publishing an extended report of the proceedings, and only a few of the more important features were given in our last issue.

Those present were C. F. Gildersleeve, Lake Ontario and Bay of Quinte Steamboat Co.; J. H. Hall, R. T. Holcombe, Ottawa Transportation Co.; T. Donnelly, Donnelly Salvage and Wrecking Co.; B. W. Folger, Niagara Navigation Co.; H. W. Richardson, of J. Richardson and Sons, Kingston, Ont.; T. McIntosh, Niagara, St. Catharines and Toronto Navigation Co.; H. S. Folger, St. Lawrence River Steamboat Co., and Thousand Islands Steamboat Co.; J. A. Cuttle, L. L. Henderson, Montreal Transportation Co.; R. O. Mackay, New Ontario Steamship Co., Hamilton and Fort William Navigation Co., and Hamilton and Montreal Navigation Co.; A. A. Wright, Victoria Harbor Lumber Co.; G. P. Murphy, Ottawa Forwarding Co.; F. Plummer, Canadian Lake and Ocean Navigation Co.; R. W. Shepherd, Ottawa River Navigation Co.; C. J. Smith, G. Johnston, Richelieu and Ontario Navigation Co.; H. H. Gildersleeve, Northern Navigation Co.; Capt. J. Reid, Reid Wrecking Co.; J. Hannan, J. P. Cavanagh, Ogdensburg Coal and Towing Co.; G. B. Greene, Upper Ottawa Improvement Co. There were also present the Secretary, F. King; E. Adams, Chairman of the Steamboat Inspection Service, and Acton Burrows, publisher of THE RAILWAY AND SHIPPING WORLD.

The Secretary read the annual report as follows:—

CANALS AND CANAL TOLLS.—In response to the petition for free canals presented in April, 1903, the Government suspended the tolls for two years, desiring to ascertain the results of the change before giving permanent relief. At the annual meeting of this Association in March, 1904, the recommendation of the Executive Committee was adopted, to the effect that because the arguments which brought about a temporary removal of the tolls still remained in force, and had to a large extent been substantiated in the season of 1903, and also because the uncertainty of present conditions was very prejudicial to the business interests involved, the Association should press for a complete and final removal of the tolls. This resolution was thereafter embodied in a memorial which was presented in due course to the Governor-General-in-Council, copies being also sent to all the ministers, as well as to every member of the Senate and House of Commons, and to all the leading newspapers and boards of trade in Canada. The two-year period of exemption being on the point of expiring, your Committee recently resolved to arrange an appointment with members of the Government to hear a deputation from the Association in support of a petition for at least an extension of the period. It was upon approaching the Prime Minister for this purpose that the announcement was made for the first time that the Government had decided to continue the exemption. Enquiry has been made of the Minister of Rail-

ways and Canals as to the term of extension, but the Minister has replied that it is impossible for him to anticipate formal announcement in the usual course, which has not yet been made.

The Association has consistently advocated the enlargement of the Welland Canal at the earliest date possible, as the best and easiest means of placing the Canadian water route to the seaboard in a position of unquestioned superiority over its rivals. The memorial presented to the Government last year, and so largely circulated elsewhere, set out the views of the Association at some length, and asked for the improvement of the Welland, even if important elevator facilities were also provided at Port Colborne. The Transportation Commission at a session held in Kingston received from members of this Association a fund of expert evidence on the subject, and expressed considerable interest in the proposal. The Georgian Bay and Ottawa Canal project, however, engaged their attention also, and although no formal report has been made in its favor, the Government is now engaged upon a preliminary survey of that route to ascertain its feasibility and cost. Your committee has since considered the matter further, and on account of the large expenditure already undertaken



J. A. CUTTLE,

Managing Director Montreal Transportation Co.,
and President Dominion Marine Association.

at Port Colborne to meet present conditions, and because it will take some time to receive a report on the cost of the Georgian Bay and Ottawa project, your committee has refrained from recommending, at the present time, any immediate action in further support of the petition for the improvement of the Welland.

Under this heading reference may be made to the request of the Association, referred to your committee, that the Government should be asked to operate the Lachine Canal gates by electricity. Favorable action was taken in the matter, and before the close of last season the electric apparatus asked for was being installed. Reference may also be made to various occasions during the past year on which this Association, through its Secretary, has made representations regarding the canals which have received the Government's favorable consideration. The instructions to keep them continuously open for the fall traffic were given upon the request of this Association, and the Welland was, on like request, kept open and the channel free of ice to allow the last boats through.

Your committee have just learned of a proposal for the development of 1,100 horse power from the waters of the Rapide Plat Canal at Morrisburg, and would recommend that the Government be asked to withhold its permission, as the utilization of the waters to the extent named may seriously interfere with the safe and convenient navigation of the canal by large vessels. Your Secretary has already asked the Minister of Railways and Canals to defer action until the views of the Association are heard.

STEAMBOAT INSPECTION ACT, INSPECTION Rules and Fees.—In your committee's last report reference was made to the efforts made to obtain for members of this Association a refund of the inspection fees and tonnage dues paid early in the season of 1903, before the suspension of the regulations requiring payment. The objections to the repayment of these amounts were finally overcome and under an Order-in-Council recently issued, notice of which was at once circulated by your Secretary, the amounts claimed have at last been refunded.

The Canadian Steamboat Inspection Rules were in process of revision at the time of the last annual meeting, and the matter was then referred to a special committee of the Association. This committee reports a meeting by appointment with the Chairman of the Board of Steamboat Inspection and others, when the rules relating to equipment and engineer's certificates were fully considered and representations made on behalf of vessel interests were favorably received. The committee at that time also waited upon the Minister of Marine and Fisheries, and your Secretary subsequently submitted the committee's representations to the Minister in writing. The printing of the rules was not completed until January last, and this Association, in compliance with a special request, received a supply from the first issue, which were at once distributed among all the members.

Contemporaneously with the revision of the Canadian rules the Inspection Rules in the U.S. were being subjected to scrutiny and amendment, largely as a result of the popular sentiment expressed after the Slocum disaster. The Board of Supervising Inspectors proposed to submit a set of rules for the approval of the Secretary of Commerce and Labor on Jan. 1, 1905, but the submission was delayed until Jan. 16 to enable vessel interests to examine the draft and make suggestions. A special invitation was extended to this Association to attend a meeting of passenger lines for that purpose in Buffalo on Jan. 4. The notice was too short to arrange a general representation of the Association, but the revision being of importance to Canadian vessels plying to U.S. ports, your President and Secretary attended, and took part in the discussion of the proposed revision. A special committee, of which your representatives were made members, made various criticisms and suggestions, which were embodied in instructions for a brief to be submitted at Washington by H. D. Goulder on behalf of the vessel interests represented. The views of all parties were subsequently heard at Washington on Jan. 16, and received full consideration. The rules were revised and finally approved on Feb. 23. They have since been issued, and are now in force; and the Secretary of the Buffalo meeting, writing to this Association on the subject, reports that they conform absolutely with the brief submitted.

It has just transpired that it is the intention of the U.S. inspectors to enforce the new U.S. rules fully upon Canadian steamers subject to U.S. inspection, even in regard to equipment, which has heretofore passed U.S. inspection though not strictly complying in minor details with all their rules. Your Secretary has written to the Minister of Marine



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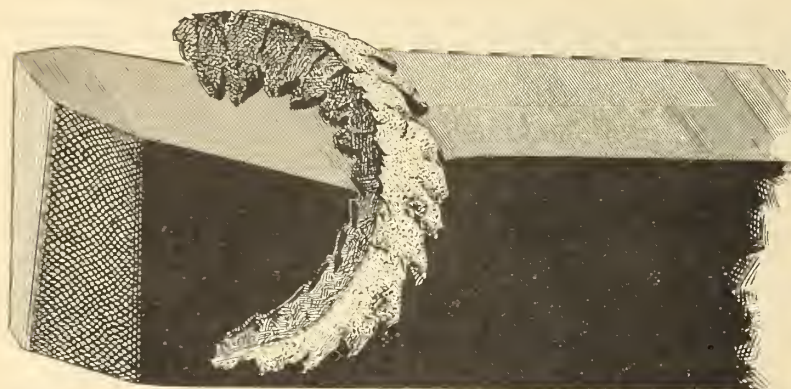
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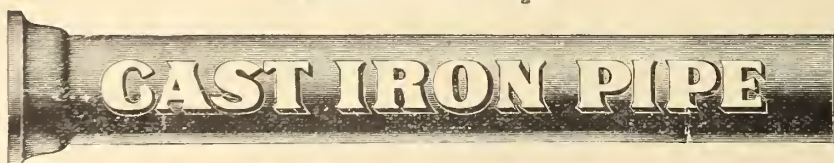
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and Fisheries, asking for intercession on behalf of the Canadian vessels affected on the ground of the great hardship entailed and the short notice given, and the Minister has promised the matter immediate attention. The committee recommend that the matter be given special attention by a deputation of the Association to the Minister.

While the contemporaneous revision of the rules in the two countries without official conference of the inspection boards seems to defer to an even later date, the suggested reciprocal inspection arrangements now provided for by the statutes of both countries, the desired reciprocity in regard to the abolition of the tax is now almost attained. In pursuance of representations from the Association, an amendment of the Steamboat Inspection Act was made in 1903 permitting our Government to take reciprocal action if any foreign country allowed the inspection of Canadian vessels free. Through the proper channels this amendment was communicated to the U.S. authorities, but no action was taken. It was then ascertained in correspondence with Washington that as the U.S. had passed similar legislation at an earlier date, they expected the initiative now to be taken by Canada. Your Secretary thereupon obtained from the Secretary of Commerce and Labor at Washington an undertaking that immediately upon notice of the passage of an Order-in-Council in Canada giving effect to the power conferred by the Statute of 1903, and removing the tax from U.S. vessels, he would at once exercise the discretionary power vested in him and remove the tax imposed by the U.S. upon Canadian vessels. This was communicated to the Minister of Marine and Fisheries and diplomatic overtures followed, resulting in a confirmation of the unofficial undertaking your Secretary had obtained. On Feb. 9 accordingly, a recommendation was made by the department to the Governor-in-Council that the necessary Order-in-Council be passed in Canada, to take effect on April 1 next, and the Order issued under on Feb. 14. Notice of this Order has been communicated to Washington, and the desired consummation will probably be reached by the removal of the fee in the U.S. before April 1.

On Dec. 29 last an Order-in-Council was passed cancelling the previous Order of April 27, 1904, under which freight vessels registered outside Canada, but holding inspection certificates of certain foreign corporations, were exempt from the Canadian rules. The matter was considered by your Executive Committee at a meeting in Toronto on Feb. 1 last, and a resolution was then adopted praying that the new regulations should not be allowed to interfere unjustly with vessel property already constructed in accordance with rules then accepted by law. It was understood later from interviews with the Department that instructions would be given accordingly, and your Secretary now has a departmental letter to the same effect which has been communicated by him to the parties principally interested.

Under this heading the bill introduced on behalf of the marine engineers to amend the Steamboat Inspection Act may be referred to. The bill aims to remove the exemption from the Act heretofore enjoyed by tugs and by freight carriers of under 150 tons, and also to prevent the issue of temporary certificates to applicants who are not at least fourth-class engineers. The bill was not reported by the committee to which it was referred last year. This year, however, it has been referred, and the new committee has taken it up promptly. A session was held on Feb. 15, and your Secretary was able to procure notice in sufficient time to send word to members of this Association named as a committee last year. A. A. Wright and your Secretary attended in Ottawa, and the fullest possible information was given

to the Parliamentary Committee regarding the purpose and probable effect of the bill. A deputation of marine engineers was also heard and the committee adjourned to procure further information and meet at the call of the Chairman. At a second session on the 1st inst., parties were again heard and considerable opposition to the bill developed in the committee. The committee has again adjourned and it is quite possible that the bill may not be advanced.

Your Executive Committee call attention again to the fact that the inspection fees and tonnage dues are left by the Act of 1903 still under the jurisdiction of the Governor-in-Council, and that no action has been taken towards their absolute abolition. At a convenient time it may be well to press again for legislation removing the possibility of their re-imposition save by Act of Parliament.

RULES OF THE ROAD.—As already reported a new set of navigation rules have been formulated to take effect upon the Great Lakes, their connecting and tributary waters, and the St. Lawrence River as far east as the Victoria Bridge and the lower exit of the Lachine Canal at Montreal. The amendments have already been referred to in a previous report, and need not be recited again. The rules in Chap. 79, Revised Statutes of Canada, are only varied in the present issue in certain details in important points, where uniformity with the U.S. rules was absolutely necessary. Several revisions have come before your Secretary during the year just closing, and final amendments were submitted to the Department at Ottawa at a last meeting on Jan. 18 last, and have in the main been accepted, though in one or two details, noticeably in the citation of authority on the title page, and in the wording of certain rules intended to be identical with those of the U.S., the recommendations have not been fully carried out. The new rules have been issued, and copies have been sent to your Secretary and distributed to members of this Association. Collectors of customs and steamboat inspectors have also been supplied, and copies may be obtained from them or from the Department at Ottawa upon application.

CHARGES AT GOVERNMENT WHARVES.—The memorial presented to the Government in 1903 petitioned generally against these charges. At the annual meeting in 1904, the recommendation of your committee was adopted, that a petition be again addressed to the Government recognizing the fact that a charge may be proper upon the freight landed or received, but pressing the view again that no charges should be made against the vessel. This petition was accordingly embodied in the memorial subsequently presented to the Government. Your committee now recommend that this petition be again taken up, and commended to the early and favorable consideration of the Government.

HOSPITAL DUES.—A year ago, the Shipping Federation of Canada, an organization more largely interested in this matter, was addressed, and an offer made to co-operate with them in any action they might take towards the removal of these unnecessary charges. Your committee, at a recent meeting, gave the matter further consideration and resolved to again bring the question forward. Your Secretary communicated with the Shipping Federation, and upon its petitioning the Government filed a petition also on behalf of this Association, which is now receiving consideration.

AIDS TO NAVIGATION, ETC. The list of recommendations made under this heading, referred to in your committee's last report, was duly laid before the Lighthouse Board. Correspondence followed regarding several items and due consideration and effect has, it is understood, been already given to several

of the recommendations made. Representations have been made to the Department, from time to time throughout the year, on behalf of this Association, regarding individual lights and buoys, and have received due consideration. Attention should also be called to the fact that this year, to accommodate vessel interests, the Department endeavored to maintain its service until Dec. 15, and that the Government also undertook to keep the harbors of Fort William and Port Arthur and the Welland Canal free of ice in the channels to enable navigation to continue unimpeded until the date named.

IRREGULARITIES IN WEIGHING OF GRAIN at Elevators.—This question came before the last annual meeting and was referred to the executive committee. At a meeting of the committee in Ottawa on June 16 last, the matter received full consideration, and as it was apparent that the Government certificate of weight given at Port Arthur or Fort William affords the elevator there full protection against a vessel whose load is found to be short at her destination, and the vessel is consequently without redress, it was resolved to ask the Winnipeg Grain and Produce Exchange to assist in taking action to do away with the Government weighing into vessels at the ports named. This assistance was asked for, but the proposal was not concurred in. During the past season several glaring examples of shortage in weight have occurred, and at a joint meeting of your committee with members of the Association interested in the grain trade, further discussion took place, resulting in a resolution to repeat the request already made to the Winnipeg Grain and Produce Exchange, pointing out the Association's desire to have responsibility for the weight of the cargo rest entirely on the elevator, with no interference whatever in the system of Government supervision of the weighing, except in the case of loading vessels, and on this resolution correspondence is still pending with the Winnipeg Grain and Produce Exchange. In the meantime, the committee recommend that the owners of vessels carrying grain from Port Arthur and Fort William should enter into an agreement prohibiting the offering of any inducements to any employee of any elevator to secure quicker dispatch or advantage in loading; and that thereafter a deputation should wait upon the management of the C.P.R. and C.N.R. elevators to ask assistance in improving the conditions at the ports named; and that, if possible, vessel owners should appoint one agent to act for all at these ports.

TRIMMING CHARGES AND METHODS at Elevators.—Upon representation that much time and unnecessary expense is involved under present conditions in trimming the loads of grain by manual labor upon vessels at the elevators at Port Arthur and Fort William, and that the difficulty could be remedied if the elevators would put in trimming spouts for the grain, your Secretary has, upon instructions, entered into correspondence with the C.P.R. and C.N.R. authorities, and has received letters from both railways that investigation is being made, and that further reports will be given at an early date.

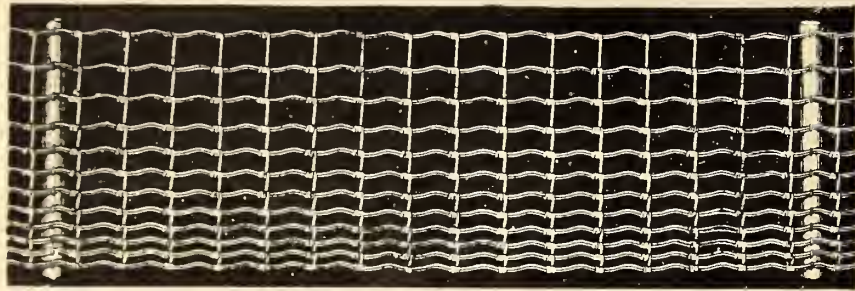
HARBORS at FORT WILLIAM and PORT ARTHUR. At the session of Parliament in 1901 bills were introduced by the Minister of Marine and Fisheries to provide for the appointment of boards of harbor commissioners at these ports, with power to levy rates on shipping entering these ports, and at the meeting of your committee in Ottawa in June last it was resolved to protest against the bills, and that a deputation should wait upon the Minister for that purpose at an appointment already arranged by the Secretary. Representations then made, and a petition presented, induced the Minister to give the matter

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further consideration, and the bills were not again presented to the House.

LAKE TRAFFIC GENERALLY.—Reference should be made to special and well-attended meetings of the lake carriers section of the Association, which have been held in Toronto twice last fall, and again in Jan. and March, all of which have been called and attended by your Secretary, and at which business affecting the special interests of the members present has been transacted. Some matters referred by the last of these meetings to your Executive Committee are still under consideration. These include the present method of loading at Port Arthur and Fort William, and the hardship entailed in moving about from port to port; the provision of bills of lading to protect owners, and demurrage on coal and grain.

MEMBERSHIP.—The membership of the Association remains as it was during 1903 and 1904, with the addition of some two or three new companies. The total tonnage represented is 112,297, of which 79,349 tons are steam, and 32,948 tons other vessel property. The Association represents substantially the leading passenger and freight lines on the inland waters of Canada, and it may be pointed out that practically all the Canadian vessels engaged in carrying grain upon the lakes have come into the Association with the exception of the Algoma Central, the Canada Atlantic, and C.P.R. steamers. On account of the Treasurer's statement submitted to you, it must be explained that one company whose total tonnage is included in the above total has so far paid dues this year only upon a section thereof, and that two other companies which have entered during the season have not yet paid their dues and their tonnage is not included in the above figures. Your committee has considered the method of assessment, and recommends that hereafter a minimum of \$5, and a maximum of \$100 be paid by members. It is also recommended that the assessment for 1905-6 be at the rate of — cents per ton on steam vessels, and — cents per ton on sailing and barge property.

The report was unanimously adopted, except the portion of the last section respecting the membership fees for the current year, the committee having left some of the amounts blank.

It was moved that the assessment for 1905 be at the rate of 2c. per ton on steam vessels and ½c. a ton on sailing and barge property. An amendment was moved placing the minimum assessment at \$5, and the maximum at \$125. The amendment was lost and the original motion carried, but the Executive Committee was authorized to consider any special cases which might be brought to its notice, and in respect to which there might be complaints as to the amount levied.

Following is a summary of the Secretary-Treasurer's statement:—

RECEIPTS.	
Balance from 1903	\$ 1,274.37
Interest savings bank deposit.....	30.18
Membership dues.....	1,243.75
	<u>\$2,548.30</u>
DISBURSEMENTS.	
Bank commissions on cheques.....	\$ 4.27
Postage.....	51.84
Telegrams and telephones.....	34.85
Printing and stationery.....	134.14
Periodicals.....	8.10
Charts.....	23.38
Travelling expenses, Executive Committee and Secretary Treasurer	440.85
Salary Secretary Treasurer, including balance of 1903	650.00
Filing cabinet.....	62.10
Wreath late Jno. Bertram's funeral.....	10.15
Balance in bank.....	1,128.62
	<u>\$2,548.30</u>

R. O. Mackay brought up the question of the speed of vessels in the Detroit and St. Clair rivers, more particularly screw steamers. A

steamer passes any given point in these rivers about every ten minutes. Opposite Court-right most of the steamers use the Canadian channel, and they are in the habit of keeping close to the Canadian shore, particularly on the up trip, for the purpose of having less current to contend with. The Michigan Central Rd. has extensive docks at Courtright, and when a boat is moored at the dock and a passing steamer keeps too close to the Canadian shore, the suction is so great as to make a steamer moored at the dock surge, and unless she has an additional number of lines they are broken, and she is carried away from her moorings. Mr. Mackay thought that a steamer passing at a high rate of speed through low waters was liable for damage to the property caused by her going at such speed. Last season the Wahcondah was carried away from her moorings at Court-right and the Donnacona at Point Edward, and the first named boat sustained damage to the extent of about \$100, and the other between \$200 and \$300. His firm was in correspondence with the owners of the boats, which are owned in the U.S., that did the damage. The U.S. define the rate of speed at which a vessel should go through St. Mary's River, and he thought Canada should have a rule for the Detroit and St. Clair rivers, for such portions of them as are under Canadian jurisdiction. It was decided to submit the matter to the Minister of Marine.

J. A. Cuttle suggested that the Farran's Point Canal should be kept open the entire season, including Sundays. This canal, which is about five miles above the head of the Cornwall Canal, is simply a lock at the foot of the currents, or most intricate part of navigation on the St. Lawrence. Under the existing regulations, vessels are detained there all day Sunday, and are obliged to start at 9 o'clock on Sunday night, while if the night is at all unfavorable, they have to wait till the following morning. The lift lock at Cardinal, at the head of the currents, is kept open all season, thus enabling vessels to pass down on Sundays and to reach Dickenson's Landing, at the head of the Cornwall Canal, on Sunday evening. This is a great convenience, which would be considerably added to if the Government would deal with the lock at the lower end of the currents in the same manner.

H. H. Gildersleeve contended that all the canals should be open on Sundays. J. A. Cuttle opposed this, saying that if the matter was opened up the time for which the canals are opened on Sundays might be curtailed. The matter dropped without any action being taken.

A resolution, as given in our last issue, was passed urging the Department of Marine to take immediate steps to secure reciprocal steamboat inspection between Canada and the U.S.

R. W. Shepherd stated that under the new inspection rules the Ottawa River Navigation Co. and other vessel owners were required to provide a number of additional life-boats. It was preferable to have these of metal, instead of wood, on account of better lasting qualities, etc., but there was practically only one maker of metallic life-boats in Canada, viz., in the Province of Quebec, and his output was very limited and his prices high. Mr. Shepherd therefore urged that the Government should be asked to admit metallic life-boats free of duty, at least until such time as they can be made in Canada in sufficient quantities to fill the demand. It was decided to prefer a request to the Department of Customs in accordance with Mr. Shepherd's suggestion.

A resolution was adopted thanking the Dominion Government for the way in which it had granted a number of requests made by the Association.

Officers for the current year were elected as stated in our last issue.

In the afternoon most of the members attending the meeting interviewed several cabinet ministers and officials. They first waited on the Minister of Marine, Hon. R. Prefontaine. C. F. Gildersleeve, on behalf of the Association, protested against the passage of the bill introduced in the House of Commons by D. L. McCarthy, M.P., to amend the Steamboat Inspection Act. He urged that steps be taken to arrange with the U. S. Government for reciprocal steamship inspection, and that pending such an arrangement the U.S. Government be asked not to enforce for this season, as far as Canadian vessels are concerned, its new regulations respecting the amount of cork required in life preservers. He also suggested that the present system of levying marine hospital fees be abolished, that the speed of vessels on the Detroit and St. Clair rivers be regulated, and that the charges at Government wharves be abolished. C. J. Smith spoke in reference to life preservers. Owing to the Slocum disaster the U. S. authorities had decided that life preservers which had passed inspection before would not now be accepted. The present life preservers used in Canada contained about 5½ lbs. of cork, while the U. S. rules call for 6 lbs. The R. and O. N. Co., to comply with the new regulations, would require about 4,000 new life preservers, and the various companies embraced in the Association would probably want at least 20,000. It would be impossible to procure them in time for the opening of navigation. He suggested that the Minister should ask the U. S. Government to extend the rule for the present season and then that there be reciprocal inspection between the two countries. He also pointed out that the Canadian rules do not give credit for life rafts in the same way as the U. S. rules do. J. A. Cuttle spoke in reference to marine hospital dues, contending that the Government collected more than was necessary, and pointing out that vessels clearing from Quebec ports had to pay hospital dues in the U. S., while vessels clearing from Ontario ports did not have to do so. Captain Donnelly urged the necessity for arrangements between Canada and the U. S. respecting reciprocal inspection. H. H. Gildersleeve objected to the charges at Government wharves on Georgian Bay. He pointed out that the Government, for the purpose of aiding navigation and the different localities, have built wharves at which a charge is made for steamers landing, in addition to a Government rate of wharfage on the goods. The Government appoints caretakers who are not responsible for the goods when landed. He contended that a wharf was like the dredging of a channel or a lighthouse—an aid to navigation—and that a charge should not be made for the one unless it was for the other. He also urged that Government wharfingers should be responsible for the goods landed in their charge, and that the goods should pay the wharfage instead of the steamers being taxed when landing them. It often happened that the Northern Navigation Co.'s steamers discharged freight on which the earnings were less than a dollar, while the steamer had to pay \$1.50 to \$2.50 for landing. In reply, Mr. Prefontaine promised to carefully consider the various requests and said he would immediately communicate with the U. S. Government respecting the inspection matters.

The delegation then called on J. McDougald, Commissioner of Customs. R. W. Shepherd urged the abolition or suspension of the duty on metallic life-buoys. Captain Donnelly suggested a change in the system of clearance papers to vessels leaving Fort William and Port Arthur. He pointed out that when a vessel starts to load a grain cargo at Port William, the captain often expects to complete loading there, but when the vessel is partly loaded he is ordered to go to Port Arthur for the balance, or, as frequently

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Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	1,000,000 "	
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Canada Atlantic Railway Elevator, Coteau Landing, Que.	500,000 "	
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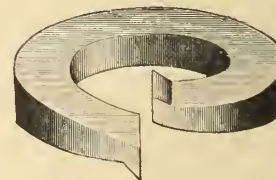
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happens, he had to return again to Fort William to finish loading. If this happens before the closing of the Customs office, at 4 p.m. or before 9 a.m., the captain frequently has to waste considerable time in finding a Customs officer, and at night it is even worse, as there is only one officer at each port. A vessel cannot leave Fort William till the captain has obtained a clearance. He suggested that if the agent of the vessel or the shipper gave the Customs officer information regarding the cargo aboard, as the voyage was between Canadian ports, the Department should arrange so that the vessel be not delayed, more especially as these vessels are under the coastwise license. The present system causes great delay. Captains are anxious to make the voyage between the two ports during daylight, as the channel is an intricate one, and frequently they are unable to do this on account of the time lost in obtaining a clearance.

The Minister of Railways, Hon. H. R. Emmerson, received the delegation in his room in the House of Commons, where they were introduced by W. Harty, M.P. The Secretary read a memorial respecting the application of the village of Morrisburg for the development of 1,100 horse-power from the Rapids Plat Canal, for the use of the village and for factories to be established there. The memorial stated that the utilization of the water for power to the extent named would decrease the depth of water and cause such currents throughout the whole course of the canal, as well as such disturbance at the point where the water would be withdrawn, that navigation of the canal by large steamers and tows of barges would be difficult and troublesome at all times, and probably impossible for large vessels with full loads at times of low water. The late engineer in charge refused to sanction the cutting of the bank and the withdrawal of water from the canal for power to any greater extent than that already utilized, believing that the results would be seriously prejudicial to the size and ready transportation of vessels past this point of the river, the main purpose for which the canal was intended. The entrance at the head of the canal was enlarged and the piers extended to enable vessels bound down to enter the canal at times when the water is too low for safe passage down the rapid, and any additional current in the canal would be specially troublesome and dangerous. A similar memorial was submitted signed by a number of captains navigating the upper St. Lawrence River. Capt. Donnelly supported the memorials in a vigorous and practical speech. The Minister said that Morrisburg already had the right to use 250 horse-power and that the application was for only 750 additional horse-power. The Department's Engineer had reported favorably on the application, but in view of the protests submitted the matter would be thoroughly gone into, and if the utilization of the additional power desired would interfere with navigation, of course it must not be allowed.

C. F. Gildersleeve and H. S. Folger spoke in support of the proposal to improve the Wolfe Island Canal. This island is in Canadian water, extending from some few miles southwest of Kingston almost to Gananoque. Opposite Kingston is the port of Cape Vincent, N.Y., the route between the two ports being the natural international highway from Northern New York to Central Ontario. Wolfe Island forms a barrier in the way, the route around its foot being about 24 miles, and around its head about 20 miles, and these routes are exposed to the rough waters of the lake under the prevailing southwest-erly winds. Many years ago a canal was cut through the island, two bays on the opposite shores of the island being thus joined. The work was not properly done, no means were available for its maintenance, and it partly

filled up and fell into disuse. The dredging of the canal would shorten the route from Kingston to St. Vincent to 13 miles and would enable a car ferry to be put on. It would lower the price of coal, which could be brought in barges from Cape Vincent to Kingston, instead of by vessel from Charlotte or Oswego, across the Lake. The Minister said that this was a matter which came under the jurisdiction of the Public Works Department.

The delegation, accompanied by Mr. Harty, then called on the Acting Minister of Public Works, Hon. C. S. Hyman, when C. F. Gildersleeve and H. S. Folger urged the construction of a ship channel across Wolfe Island, advancing similar arguments to those submitted to the Minister of Railways. Mr. Hyman suggested that a memorial containing the facts, and showing the commercial possibilities of the route, be prepared and submitted to him.

The Commissioner of Customs, who was interviewed by a deputation from the Dominion Marine Association in reference to clearances of vessels between Port Arthur and Port William, Ont., has notified the Association that he has issued instructions to the collectors at the two ports whereby a vessel clearing from Port Arthur for Port William to take on part of her cargo, or vice versa, from Port William to Port Arthur, will not be required to report to the customs authorities in each case, and will only have to obtain one final clearance when she leaves for good with her cargo. This rule will apply only for vessels leaving coastwise, and not to a vessel sailing for a port outside Canada.

Among the Express Companies.

The Western Ex. Co. has opened offices at Strong's, Mich., and Karlstadt, Minn.

J. J. Lacoste has been appointed agent for the Dominion Ex. Co. at New Liskard, Ont., where an office has just been opened.

The Dominion Ex. Co. has opened offices at Cobalt and Latchford, Ont., on the line of the Temiskaming and Northern Ontario Ry.

W. W. Williamson, Accountant Canadian Ex. Co., has been appointed Superintendent of Tariffs in addition to his duties as Accountant. Office, Montreal.

V. G. R. Vickers, Superintendent Atlantic Division Dominion Express Co., was married in Montreal April 26 to Mrs. Routh, daughter of W. B. Smith, General Manager Dominion Transport Co. The Dominion Express Co.'s staff presented Mr. Vickers with a silver tea service.

H. N. Lingley has been appointed Assistant Route Agent, Canadian Ex. Co., with headquarters at Truro, N.S. He will have charge of routes 60, 61, 62, 63, 64, 96, 97, 98, 100, 102 and 116, and also on Prince Edward Island Ry. He will report direct to H. C. Creighton, Superintendent, St. John, N.B. Route Agent Coleman will have charge of routes 55, 56, 57, 58, 59, 65, 66, 90, 91, 92, 93, 94, 95 and 101.

Roscoe Murphy, heretofore Route Agent Canadian Ex. Co.'s Central Division, has been appointed Assistant Superintendent of that division, and the following lines: G.T.R., east of Montreal, to Portland, Me., and Point Levis, Que.; Intercolonial Ry., Montreal to Rivière du Loup, inclusive; Temiscouata Ry.; Quebec and Lake St. John Ry.; Great Northern Ry.; Quebec Southern Ry.; Central Vermont Ry., in the province of Quebec, and G.T.R. south of Montreal to Massena Springs, N.Y. Office, Montreal.

The Dominion and Western Ex. Companies have adopted the uniform style of money

order agreed upon by all express companies, and it was notified that the necessary forms would be issued during April. The orders are printed in dark green upon a lighter green, the Dominion Ex. Co.'s having the imprint of a coat of arms thereon, and the Western Ex. Co. an imprint of the company's call card. The Canadian Ex. Co. has also adopted the uniform style of money orders, and the new issue will begin with the letter F. It has also abolished the three months' time limit printed on the face of the previous issues of its orders.

Telegraph and Cable Matters.

The G.N.W. Telegraph Co. has opened an office at Beaufort, Que.

The Western Union Telegraph Co. paid its usual quarterly dividend of 1½%, April 15.

Among the votes passed by the House of Commons during the current session is one for \$100,000 to provide for the establishment of Marconi wireless telegraph stations.

The Dominion Government has given notice that it will establish a wireless telegraph station (Marconi System) on Sable Island, and that it will be in operation Aug. 1.

H. E. Roberts has been appointed Superintendent of Supplies and General Purchasing Agent of the Western Union Telegraph Co. at New York, succeeding the late E. C. Cockey.

The Quebec Steamship Co.'s steamers Bermudian and Trinidad have been fitted with wireless telegraph apparatus, and messages for these steamers will be accepted by the telegraph companies.

E. C. Cockey, Superintendent of Supplies and General Purchasing Agent, Western Union Telegraph Co., died in New York, recently. He was President of the Old Time Telegraphers' Association in 1895.

The two copper wires which the C.P.R. Telegraph Department will string this year between Winnipeg and Emerson, Man., will connect with the wires of the Minneapolis, St. Paul and Sault Ste. Marie Ry.

The Vancouver, Westminster and Yukon Ry. is stringing its telegraph wires between Vancouver and New Westminster, B.C. It has power to transact a commercial business, and its wires will connect with those of the Great Northern Ry., U.S.

W. Marconi, the inventor of the system of wireless telegraphy adopted by the Canadian Government, was in Glace Bay, N.S., recently, where he inspected the new station erected inland from the old one built in 1902. He stated that the station was moved inland at the request of the British and Canadian Governments, so as to be out of shell range in the event of hostilities, in which the Canadian shores might be attacked. He added that he had recently perfected a magnetic detector, on the principle of the Wheatstone recorder, which will record 100 words a minute. Experiments with this instrument will be made on the steamer when Marconi is returning to England.

The Dominion DeForest Wireless Telegraph Co. is being organized with a capital of \$1,200,000 and offices in Montreal, to establish wireless telegraph stations throughout Canada, on the system invented by L. DeForest, of New York. The company proposes to establish stations in all important centres in the different provinces and territories; to place instruments on board all vessels doing business in Canadian waters, and to distribute news to the newspapers of the country. The stations in Montreal and Ottawa are being fitted up and it was expected to have them in operation by the end of April. The next stations it is proposed to equip are to be at Quebec and Toronto.

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General Telephone Matters.

G. F. Freeman is Manager of the Valley Telephone Co., Middleton, N.S.

The Bell Telephone Co. is preparing to install a telephone system in Blind River, Ont.

The supplementary letters patent authorizing the New Brunswick Telephone Co. to increase its capital stock from \$60,000 to \$250,000, have been issued.

The Stark Telephone, Light and Power System, which operates in Toronto Junction, Ont., and vicinity, has decided to declare a dividend of 3½% for the current half-year, payable in July.

The Bell Telephone Co. has extended its line from Owen Sound, Ont., to the King's Royal Park, three miles; and is preparing to construct lines to Kemble, East Linton and Hogg on the party line system, with Owen Sound as the centre.

J. H. Martin, local manager of the Bell Telephone Co. at Woodstock, Ont., has been removed to London, Ont., where he will have charge of construction work, and will be succeeded by F. W. Dewar, heretofore local manager at Walkerville, Ont.

The Stratford, Ont., City Council is negotiating with the Bell Telephone Co. in connection with the renewal of its franchise. The council desires to have the wires placed underground in the main streets, and will give free use of the streets for this purpose.

The work of equipping the main exchange of the Bell Telephone Co. in Montreal with central energy instruments is in progress, and is expected to be completed in July. There are 4,800 subscribers on the lines centering on the Hospital St. exchange, where a new switchboard is under construction.

The Bell Telephone Co. transferred its east end switchboard and apparatus from the old building on St. Catherine St., Montreal, to the new building on St. Andre St., Mar. 31. There are 3,500 subscribers on the lines centered at this exchange, and the transfer was made without any interruption in the service.

An independent telephone line is being constructed in the vicinity of Port Colborne, Ont., the intention being to establish exchanges at Port Colborne, Ridgeway, Fort Erie and neighboring towns and villages. It is also proposed to construct lines for farmers in the vicinity. B. Matthews, A. Spark and J. Ball, of Ridgeway, are the promoters of the enterprise.

The Haileybury and Cobalt Telephone Co. has been incorporated under the Ontario Companies' Act, with a capital of \$5,000 and office at Haileybury, Ont., to construct a telephone line between Haileybury and Cobalt, Ont., and other points in the district of Nipissing. The provisional directors are:—H. McQuarrie, T. J. Gorman, P. A. Cobbold, C. G. Farr, D. Myles, J. F. Gillies, of Haileybury.

The Ontario Telephone Co. is the title under which application is being made at the current session of the Ontario Legislature for an act of incorporation by residents of Brantford, Ont., for whom Brewster, Muirhead and Heyd, solicitors, are acting. The company proposes to carry on a general telephone business in Brantford and other towns, and to make a special feature of rural connections.

The reference by the House of Commons of the telephone question to a select committee is for the purpose of inquiring into and reporting upon "the various public telephone systems in operation in Canada and elsewhere, as the committee shall determine; and to consider and report what changes, if any, are advisable in respect of the methods at present in force for furnishing telephone service to the public. Such committee to have power to send for persons and papers,

to examine persons under oath and to report from time to time." At the first meeting of the committee Sir Wm. Mulock was appointed chairman, and F. Cook, Ottawa, President of the Union of Canadian Municipalities, attended and promised the co-operation of that body in the investigation. The committee passed a resolution stating that it was desirable for it to inquire into and consider all existing legislation regarding telephone systems in the Dominion of Canada, including federal, provincial and municipal legislation; the United Kingdom; the United States; Australasia; Norway and Sweden, and Denmark. The committee is taking evidence at considerable length.

PURCHASING AGENTS' GUIDE.

(Continued from third page of cover.)

Car Ranges	Geo. R. Prowse..... Montreal.
Car Wheels	Jas. W. Pyke & Co..... Montreal. Rhodes, Curry & Co..... Amherst, N.S. Standard Steel Works..... Philadelphia, Pa.
Castings	Crossen Car Mfg. Co..... Cobourg, Ont.
Castings (Steel)	Montreal Steel Works..... Montreal. Rhodes, Curry & Co..... Amherst, N.S.
Cast-Steel Hammers	American Brake Shoe & F'dry Co.... Mahwah, N.J.
Cast-Steel Track Tools	American Brake Shoe & F'dry Co.... Mahwah, N.J.
Cast-Steel Wrenches	American Brake Shoe & F'dry Co.... Mahwah, N.J.
Cement	Thorn Cement Co..... Buffalo, N.Y.
Cement Machinery	Jas. W. Pyke & Co..... Montreal.
Coal Haulage Ropes	The B. Greening Co..... Hamilton, Ont.
Concrete	Thorn Cement Co..... Buffalo, N.Y.
Concrete Mixers and Rock Crushers	F. H. Hopkins & Co..... Montreal. W. H. C. Mussen & Co..... Montreal.
Conduit Contractors	F. T. Ley & Co..... Springfield, Mass.
Contractors	F. T. Ley & Co..... Springfield, Mass.
Contractors' Plant	F. H. Hopkins & Co..... Montreal. T. A. Morrison & Co..... Montreal. W. H. C. Mussen & Co..... Montreal.
Contractors' Supplies	J. A. Dawson & Co..... Montreal.
Cooking Apparatus	Geo. R. Prowse..... Montreal
Copperware	Geo. R. Prowse..... Montreal.
Corrugated Furnaces	Continental Iron Works..... Brooklyn, N.Y.
Cross Arms, Top Plus and Side Blocks	Canadian General Electric Co..... Toronto. The Firstbrook Box Co..... Toronto.
Cross Arm Braces	Canadian General Electric Co..... Toronto. Toronto Bolt and Forging Co..... Toronto.
Crossing Gates	General Railway Signal Co..... Buffalo, N.Y. The N. L. Piper Railway Supply Co.... Toronto.
Crowbars	Toronto Bolt and Forging Co..... Toronto.
Culvert Pipe (Cast Iron)	Gartshore-Thompson Pipe & F'dry Co. Hamilton.
Cuts	Acton Burrows Co..... Toronto.
Derrick Ropes	Dominion Wire Rope Co..... Montreal. The B. Greening Co..... Hamilton, Ont.
Derricks	F. H. Hopkins & Co..... Montreal. W. H. C. Mussen & Co..... Montreal.
Diving Outfits	W. H. C. Mussen & Co..... Montreal.
Door Signs	Acton Burrows Co..... Toronto.
Drawing Materials	Eugene Dietzgen Co..... New York.
Dredges	The Bertram Engine Works Co..... Toronto.
Drilling Machines	The John Bertram & Sons Co..... Dundas, Ont.
Drills	W. Abbott..... Montreal.
Dry Goods	The Hudson's Bay Co.....
Dynamo and Electric Castings	American Brake Shoe & F'dry Co.... Mahwah, N.J.
Economizers	Babcock & Wilcox (Ltd.)..... Montreal.
Electric Car Fenders	The G. B. Meadows Wire, etc., Co. Toronto.
Electric Car Route Signs	Acton Burrows Co..... Toronto.
Electric Car Wire Guards	The G. B. Meadows Wire, etc., Co. Toronto
Electric Cranes	Canada Foundry Co..... Toronto. Dominion Bridge Co..... Montreal. W. H. C. Mussen & Co..... Montreal
Electric Ry. Brake Shoes	American Brake Shoe & F'dry Co.... Mahwah, N.J.
Electric Railway Builders	F. T. Ley & Co..... Springfield, Mass.
Electric Ry. Supplies	J. A. Dawson & Co..... Montreal.
Electric Supplies	J. A. Dawson & Co..... Montreal.
Enameled Iron Signs	Acton Burrows Co..... Toronto.
Engineers' Supplies	The Canadian Rubber Co. of Montreal. Williams & Wilson..... Montreal.
Engines, Automatic	Robb Engineering Co..... Amherst, N.S.
Engines, Corliss	Robb Engineering Co..... Amherst, N.S.
Engines, Hoisting	The Bertram Engine Works Co..... Toronto
Engines, Stationary and Marine	The Bertram Engine Works Co..... Toronto. Canada Foundry Co..... Toronto. Polson Iron Works..... Toronto. Robb Engineering Co..... Amherst, N.S.
Engines, Steam	Erie Heating Co..... Chicago, Ill. Williams & Wilson..... Montreal.
Engraving	Toronto Engraving Co..... Toronto.
Express Office Signs	Acton Burrows Co..... Toronto.
Feedwater Heaters	Babcock & Wilcox (Ltd.)..... Montreal. Robb Engineering Co..... Amherst, N.S. Williams & Wilson..... Montreal.
Fencing	Canada Foundry Co..... Toronto. Canadian Steel and Wire Co..... Hamilton, Ont. Page Wire Fence Co..... Walkerville, Ont.
Fire Brick	Garden Sand Co..... Chicago, Ill. W. H. C. Mussen & Co..... Montreal.
Fire Escapes	The G. B. Meadows Wire, etc., Co. Toronto.
Fire Insurance	Dale & Co..... Montreal.
Flags	The Hudson's Bay Co.....
Flour	The Hudson's Bay Co.....
Forgings	Crossen Car Mfg. Co..... Cobourg, Ont. General Railway Signal Co..... Buffalo, N.Y. Standard Steel Works..... Philadelphia, Pa.
Gas Pipe (Cast Iron)	Gartshore-Thompson Pipe & F'dry Co. Hamilton.
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Grain Elevators	John S. Metcalfe Co..... Chicago, Ill.
Groceries	The Hudson's Bay Company.....
Handcars	Crossen Car Mfg. Co..... Cobourg, Ont. W. H. C. Mussen & Co..... Montreal.
Hardware	The Hudson's Bay Company.....
Headlights	N. L. Piper Railway Supply Co..... Toronto.
Headlinings	Crossen Car Mfg. Co..... Cobourg, Ont.
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(Continued on page 227.)

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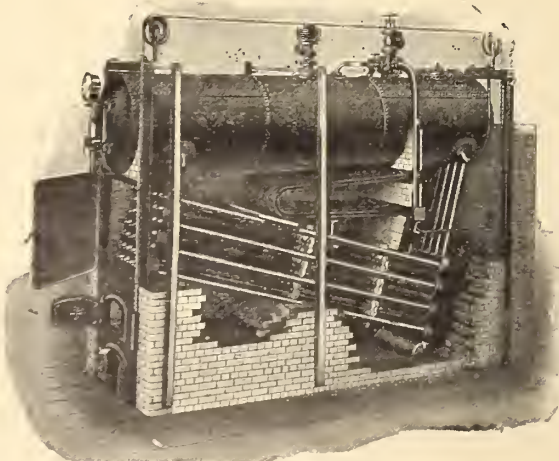
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- Heating for Power Plants**
Erie Heating Co. Chicago, Ill.
- Hose, Air Brake and Steam**
The Canadian Rubber Co. of Montreal.
- Hose, Fire**
The Canadian Rubber Co. of Montreal
- Hose, Suction**
The Canadian Rubber Co. of Montreal.
- Illustrations**
Acton Burrows Co. Toronto.
- Instruments, Surveying and Engineering**
Eugene Dietzgen Co. New York.
- Insurance (Fire and Marine)**
Dale & Co. Montreal.
- Interlocking and Signalling**
General Railway Signal Co. Buffalo, N.Y.
- Interlocking Signals**
Montreal Steel Works. Montreal.
- Iron Fencing**
The G. B. Meadows Wire, etc., Co. Toronto.
- Iron and Steel Castings**
American Brake Shoe & F'dry Co. Mahwah, N.J.
- Iron Signs**
Acton Burrows Co. Toronto.
- Japans**
McSkill, Dougall & Co. Montreal.
- Journal Bearings**
Canada Foundry Co. Toronto.
Crossen Car Mfg. Co. Cobourg, Ont.
Jas. W. Pyke & Co. Montreal.
St. Thomas Brass Co. St. Thomas, Ont.
- Lager Beer, &c.**
E. L. Drewry. Winnipeg.
- Lamps, Incandescent**
Canadian Westinghouse Co. Hamilton, Ont.
- Lamps and Lanterns**
The Hudson's Bay Company.
N. L. Piper Railway Supply Co. Toronto.
- Lathes**
The John Bertram Sons Co. Dundas, Ont.
Williams & Wilson. Montreal.
- Launches**
The Bertram Engine Works Co. Toronto.
Polson Iron Works. Toronto.
- Lights, Contractors' and Wrecking**
F. H. Hopkins & Co. Montreal.
W. H. C. Mussen & Co. Montreal.
- Locomotive Boiler Washer, Automatic**
Erie Heating Co. Chicago, Ill.
- Locomotive Driver Brake Shoe**
American Brake Shoe & F'dry Co. Mahwah, N.J.
- Locomotives (Compressed Air)**
Baldwin Locomotive Works. Philadelphia, Pa.
Locomotive and Machine Co. of Montreal.
- Locomotives (Electric)**
Baldwin Locomotive Works. Philadelphia, Pa.
Canada Foundry Co. Toronto.
Locomotive and Machine Co. of Montreal.
- Locomotives (Logging)**
Lima Locomotive and Machine Co. Lima, Ohio.
- Locomotives (Rack)**
Baldwin Locomotive Works. Philadelphia, Pa.
Locomotive and Machine Co. of Montreal.
- Locomotives (Steam)**
Baldwin Locomotive Works. Philadelphia, Pa.
Canada Foundry Co. Toronto.
Canadian Locomotive Co. Kingston, Ont.
F. M. Hicks & Co. Chicago, Ill.
F. H. Hopkins & Co. Montreal.
Lima Locomotive and Machine Co. Lima, Ohio.
Locomotive and Machine Co. of Montreal.
The Saxon Engine Works. Chemnitz, Germany.
- Locomotive Stack Netting**
The G. B. Meadows Wire, etc., Co. Toronto.
- Locomotive Tile**
Garden City Sand Co. Chicago, Ill.
- Machine Tools**
W. Abbott. Montreal.
The Saxon Engine Works. Chemnitz, Germany.
Williams & Wilson. Montreal.
- Machine Screws, Set Cap and Planer**
John Morrow Machine Screw Co. Ingersoll.
- Machinery, Marine**
Sheriffs Mfg. Co. Milwaukee, Wis.
- Machinery, Mining**
The Bertram Engine Works Co. Toronto.
- Machinery Repairs**
The Bertram Engine Works Co. Toronto.
- Machinery Repairs, Marine**
Sheriffs Mfg. Co. Milwaukee, Wis.
- Manganese Steel Castings**
Montreal Steel Works. Montreal.
- Manhole Frames and Covers**
American Brake Shoe & F'dry Co. Mahwah, N.J.
- Marine Insurance**
Dale & Co. Montreal.
- Mats and Matting**
The Canadian Rubber Co. of Montreal.
- Mechanical Draft Fans**
Babcock & Wilcox (Ltd.). Montreal.
- Milepost Numbers**
Acton Burrows Co. Toronto.
- Milling Cutters**
W. Abbott. Montreal.
Williams & Wilson. Montreal.
- Milling Machines**
The John Bertram Sons Co. Dundas, Ont.
- Mills, Boring and Turning**
The John Bertram Sons Co. Dundas, Ont.
- Mill Tools and Supplies**
J. A. Dawson & Co. Montreal.
- Moulding Sand**
Garden City Sand Co. Chicago, Ill.
- Nickel**
The Orford Copper Co. New York.
- Nickel for Nickel Steel**
The Orford Copper Co. New York.
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Acton Burrows Co. Toronto.
- Nuts, Cold Pressed**
John Morrow Machine Screw Co. Ingersoll.
- Nuts, Square and Hexagon**
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Toronto Bolt and Forging Co. Toronto.
- Oakum**
The Hudson's Bay Company.
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- Office Fittings**
Canadian Office & School Furniture Co., Preston, Ont.
- Office Railings**
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- Office Signs**
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- Oils**
Galena Signal Oil Co., Franklin, Pa., and Toronto.
- Packing**
The N. L. Piper Railway Supply Co. Toronto.
Williams & Wilson. Montreal.
- Packing, High Pressure Sheet**
The Canadian Rubber Co. of Montreal.
- Packing, Piston**
The Canadian Rubber Co. of Montreal.
- Paints, Acid Proof and Anti-rust**
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- Paints, Structural Iron**
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- Pipe**
Erie Heating Co. Chicago, Ill.
- Pipe and Pipe Coverings**
W. C. Baker. New York.
- Pipe Covering**
Mica Boiler Covering Co. Montreal.
- Planers**
The John Bertram Sons Co. Dundas, Ont.
- Ploughs, Contractors'**
W. H. C. Mussen & Co. Montreal.
- Porter**
E. L. Drewry. Winnipeg.
- Portable Boilers**
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Robb Engineering Co. Amherst, N.S.
- Portland Cement**
Thorn Cement Co. Buffalo, N.Y.
- Power Plants, Contractors'**
Erie Heating Co. Chicago, Ill.
- Printing**
The Hunter, Rose Co. Toronto.
The Mail Job Printing Company. Toronto.
- Pumps**
Canada Foundry Co. Toronto.
Erie Heating Co. Chicago, Ill.
- Punches**
F. J. Myers Mfg. Co. Hamilton, Ohio.
- Punching and Shearing Machines**
The John Bertram Sons Co. Dundas, Ont.
- Rail Benders, Roller**
Montreal Steel Works. Montreal.
- Rails (new)**
Drummond, McCall & Co. Montreal.
F. H. Hopkins & Co. Montreal.
J. J. Gartshore. Toronto.
- Rails (for relaying)**
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J. J. Gartshore. Toronto.
T. A. Morrison & Co. Montreal.
W. H. C. Mussen & Co. Montreal.
Jas. W. Pyke & Co. Montreal.
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- Railway Interlocking**
General Railway Signal Co. Buffalo, N.Y.
- Railway Pile Drivers**
W. H. C. Mussen & Co. Montreal.
- Railway Signalling**
General Railway Signal Co. Buffalo, N.Y.
- Railway Supplies**
J. A. Dawson & Co. Montreal.
The N. L. Piper Railway Supply Co. Toronto.
- Reamers**
W. Abbott. Montreal.
- Refrigerators**
Geo. R. Prowse. Montreal.
- Ribbons and Carbon Paper**
United Typewriter Co. Toronto.
- Rivets, Boiler and Bridge**
Canada Foundry Co. Toronto.
Toronto Bolt and Forging Co. Toronto.
- Rolled Wheels**
Standard Steel Works. Philadelphia, Pa.
- Rolls, Plate Bending**
The John Bertram Sons Co. Dundas, Ont.
- Roof Trusses**
Canada Foundry Co. Toronto.
Dominion Bridge Co. Montreal.
- Roofing Composition**
American Asphaltum & Rubber Co. Chicago, Ill.
- Roofing Pitch**
American Asphaltum & Rubber Co. Chicago, Ill.
- Roofing, Ready**
American Asphaltum & Rubber Co. Chicago, Ill.
- Roofs, Car**
American Asphaltum & Rubber Co. Chicago, Ill.
- Rope**
The Hudson's Bay Co.
- Rotary Snow Ploughs**
Crossen Car Mfg. Co. Cobourg, Ont.
- Rubber Tiling, Interlocking**
The Canadian Rubber Co. of Montreal.
- Sand, White**
Garden City Sand Co. Chicago, Ill.
- Saw Steel**
Montreal Steel Works. Montreal.
- Scrapers (Wheel and Drag)**
W. H. C. Mussen & Co. Montreal.
- Screws, Coach and Log**
Toronto Bolt and Forging Co. Toronto.
- Semaphore Arms**
Acton Burrows Co. Toronto.
- Semaphores**
The N. L. Piper Railway Supply Co. Toronto.
- Sewer Pipe (Cast Iron)**
Gartshore-Thompson Pipe & F'dry Co. Hamilton.
- Shaking Grates**
Babcock & Wilcox (Ltd.). Montreal.
- Shaping Machines**
The John Bertram Sons Co. Dundas, Ont.
- Ship Lamps**
The N. L. Piper Railway Supply Co. Toronto.
- Ships**
Canadian Shipbuilding Co. Toronto.
Polson Iron Works. Toronto.
- Shovels**
F. H. Hopkins & Co. Montreal.
The Hudson's Bay Co.
- Side Bearings**
Simplex Railway Appliance Co. Montreal.
- Signal House Numbers**
Acton Burrows Co. Toronto.

Signals General Railway Signal Co. Buffalo, N.Y. N. L. Piper Railway Supply Co. Toronto.	Structural Metal Work Canada Foundry Co. Toronto. Dominion Bridge Co. Montreal. Locomotive and Machine Co. of Montreal. Jas. W. Pyke & Co. Montreal.	Valves, Rubber The Canadian Rubber Co. of Montreal.
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Snow Ploughs Crossen Mfg. Co. Cobourg, Ont. Rhodes, Curry & Co. Amherst, N.S.	Switch Ropes The B. Greening Co. Hamilton, Ont.	Water Filters Geo. R. Prowse. Montreal.
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Speedient High Speed Steel Montreal Steel Works. Montreal.	Tanks and Tank Fixtures Canada Foundry Co. Toronto. Ontario Wind Engine and Pump Co. Toronto.	Water Softeners Babcock & Wilcox (Ltd.) Montreal.
Spikes, Railway and Ship Toronto Bolt and Forging Co. Toronto.	Telegraph and Telephone Office Signs Acton Burrows Co. Toronto.	Wheelbarrows F. H. Hopkins & Co. Montreal.
Springs Montreal Steel Works. Montreal. Standard Steel Works. Philadelphia, Pa.	Ticket Punches F. J. Myers Mfg. Co. Hamilton, Ohio.	Wheels, rolled, solid forged Standard Steel Works. Philadelphia, Pa.
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Steel Buildings Canada Foundry Co. Toronto. Dominion Bridge Co. Montreal.	Turntables Canada Foundry Co. Toronto. Dominion Bridge Co. Montreal.	Wrecking Cranes W. H. C. Mussen & Co. Toronto.
Steel for Springs James Hutton & Co. Montreal.	Typewriters United Typewriter Co. Toronto.	Wrought Steel Piping Babcock & Wilcox (Ltd.) Montreal. Canada Foundry Co. Toronto.
Steel Plate Jas. W. Pyke & Co. Montreal.	Typewriter Repairs United Typewriter Co. Toronto.	Yachts Polson Iron Works. Toronto.
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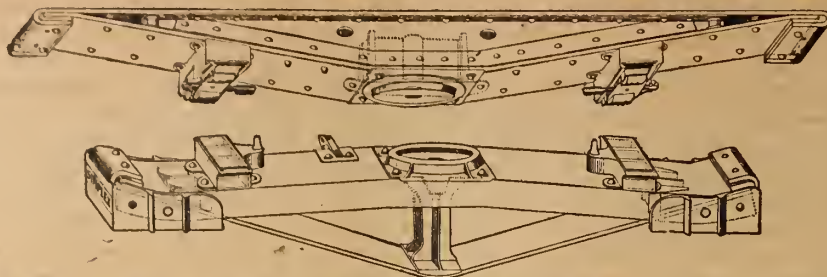
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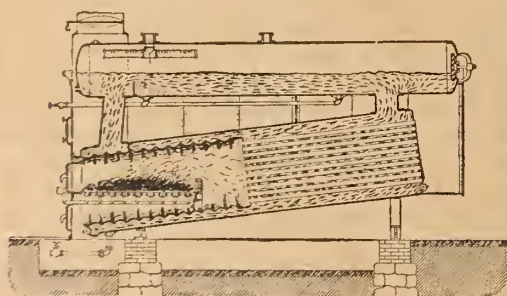
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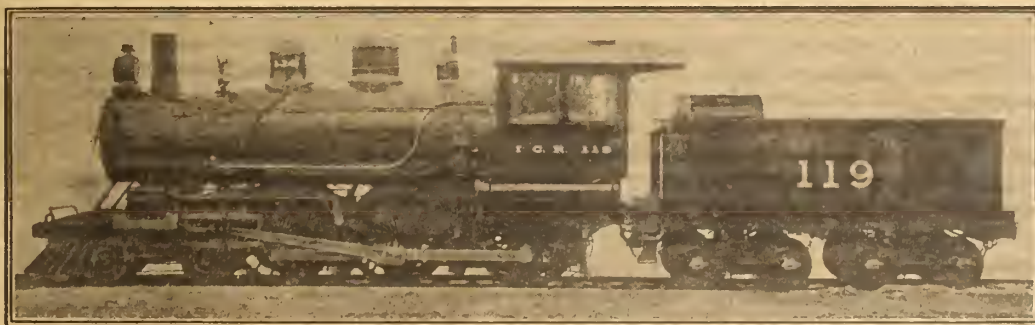
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G.T.R. Semi-Annual Meeting.

The full report of the proceedings at the half-yearly meeting of the shareholders of the G.T.R., held April 13, in London, Eng., has been received.

The President, Sir C. Rivers Wilson, in moving the adoption of the report and balance sheet, and the declaration of the dividends recommended, referred at the outset to the loss by death of Jos. Price, Vice-President, a most devoted and useful friend to the company. Mr. Price had been associated directly or indirectly with the G.T.R. for many years. During nine years he had been Vice-President, and during that period he rendered many services to the company. The affairs of the company occupied a large portion of his time and attention, and formed, indeed, one of the chief interests of his life. Shareholders would associate themselves with the deep regret which the directors felt at the loss of so valued and so esteemed a colleague.

In referring to the accounts for the past half-year, the President said that the falling off in gross receipts had been slightly more than counterbalanced by a reduction in working expenses. The decrease in gross receipts was £8,654, or a trifle more than $\frac{1}{4}$ of 1%. The increase in passenger receipts was due to some extent to the special traffic in connection with the St. Louis Exhibition, but principally to the increase in local traffic. The freight receipts showed a decrease of £65,810, owing principally to the practical failure of the wheat harvest in the Northwestern States, which not only left no wheat for export, but was insufficient for their own requirements, wheat having to be imported into the United States from the Canadian Northwest in order to keep the mills going, which also reduced the amount of Canadian wheat for export. The through traffic showed a decrease of 331,157 tons, but there was an increase of 635,831 tons of local traffic. Of the total freight carried the local traffic amounted to 5,689,116 tons, or 81% of the whole, against 5,053,281 tons, or 75% of the whole in 1903, the proportion of through tonnage falling from 25% in 1903 to 19% in 1904. The average rate received per ton showed a decrease of 5 $\frac{1}{4}$ d., from 5s. 10 $\frac{1}{4}$ d. in 1903 to 5s. 5d. in 1904, but this was attributable to the shorter average distance each ton of freight was carried, owing to the larger proportion of the traffic being local during the last half year than in 1903, the average distance being 188.72 miles in 1904, compared with 208.76 miles in 1903. This preponderance of short distance traffic, which is carried at a slightly higher rate than the through traffic, has had the effect of in-

creasing the receipts per ton per mile, which were 70-100ths of a cent compared with, 68-100ths of a cent in 1903, but this additional rate was counterbalanced by the increased cost in handling this description of traffic compared with the through traffic, which, of course, comes to the company in full car and train loads, and is hauled much longer distances. The expenditure under the head of maintenance of ways and structures showed an increase of £23,358, which was due to the carrying forward to the second half-year's accounts of a larger proportion of

been an advance of £11,842 in taxes paid during the half-year. For a number of years taxes had been gradually rising in amount, but not to any unreasonable extent. Last year, however, the Ontario Legislature passed an act increasing the taxation of railways from \$5 to \$30 a mile single track, and \$10 for each additional track. The increased amount of taxes shown in the accounts was entirely due to this legislation, which pressed very hardly on this company, seeing that practically 5-6ths of the total mileage of the double-track of the G.T.R. was in Ontario.

It appeared, from recent advices, that there was a movement in the direction of still further increasing this very heavy taxation next year. The board would take all the steps open to them to resist what they could not but regard as an exceedingly unjust burden, particularly in view of the services which this company rendered to the Province.

Including the sum brought forward, the amount available for distribution was £436,466, out of which it was proposed to pay the authorised dividend for the past half-year on the guaranteed stock and 5% for the whole year on the first preference and second preference stocks, leaving £6,618 to be carried forward. He wished to make it clear why, on that occasion, the board were not able to recommend any distribution to the third preference stockholders. It was true that the net surplus revenue for the past six months exceeded that for the corresponding period of 1903 by £32,310, but they must not forget that the earnings for the first half of 1904 were £130,000 less than for the first half of 1903. The first six months of 1903 was an extremely prosperous period, and the working of the railway resulted in their being able to pay, not only the interest on the guaranteed stock, but also the full half year's dividends on the first and second preference stocks, and the second half of that year they were enabled to pay, not only the remaining dividends on the first and second preference stocks, but also 2% on the third preference stock. In 1904 the earnings of the first six months only sufficed for the payment of interest on the guaranteed stock, thus throwing the whole of the burden of the entire year's dividends on the first and second preference stocks on to the earnings of the second six months, leaving, therefore, no margin for any distribution on the third preference stock. It was satisfactory to observe that the gross earnings for the first three months of the present year showed an increase of nearly £250,000 over those for the corresponding quarter of 1904, although



CECIL B. SMITH, M.C.A.N.Soc.C.E.

Chairman of the Timiskaming & Northern Ontario Ry. Commission.

expenditure than was usual. Comparing, however, the expenditure on this account for the whole year it was £8,080 less than in 1903. One item called for special reference, viz., the expenditure on ties, which showed an increase of £30,698. This was caused by the fact that in 1903 the company was unable to secure delivery of the requisite quantity, thereby reducing the charge for that year, and consequently increasing the amount of work to be done during 1904, when an adequate supply of ties could be obtained. Dealing with the principal items of expenditure, he said there had

(Continued on page 232.)

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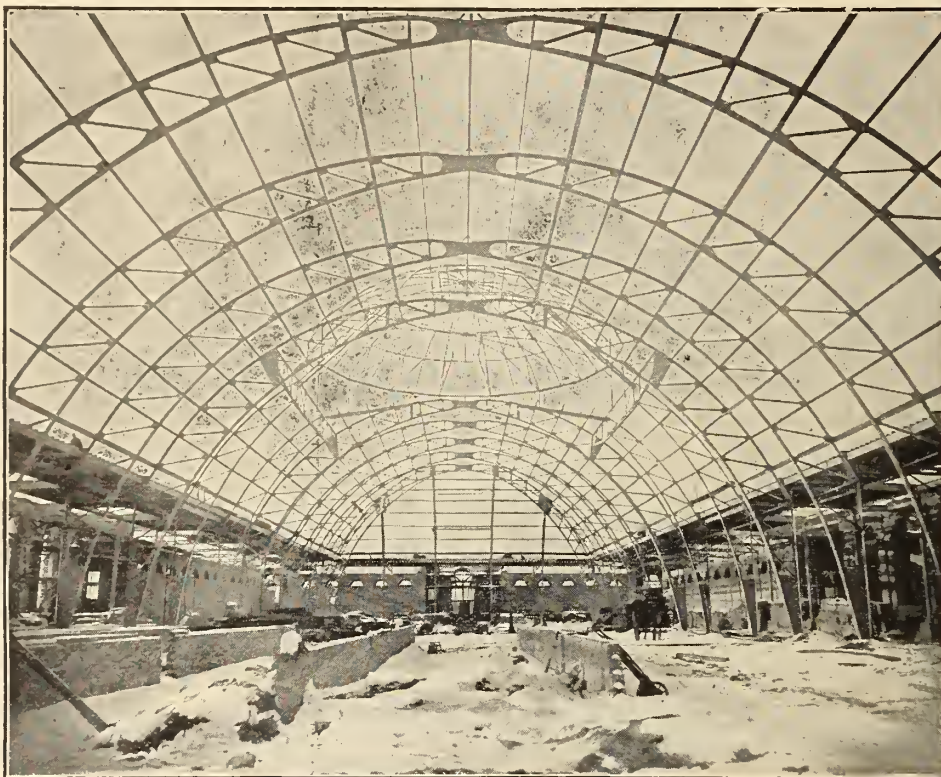
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G.T.R. Semi-Annual Meeting.*(Continued from page 229.)*

the traffic receipts were still behind those for the same period of 1903, which was an exceptional year.

Having referred to the operations of the G.T. Western Ry., and the Detroit, Grand Haven and Milwaukee Ry., and to the proposal to reduce the number of directors to ten, the President stated that it was ten years ago that the present board was placed in office. At that time, the company was not earning its fixed charges—it was living upon borrowed capital, a considerable deficit had accrued, which at June 30, 1896, amounted to £306,000. It was a very difficult matter for the company, under such circumstances, to do much in the way of alterations and improvements. However, times began to mend, and by the end of 1897 the deficit had been paid off, and in 1898 the payment of dividends was resumed. He reviewed the work done in the way of improving the line, strengthening bridges, etc., stating that now between Portland, Me., and Sarnia, Ont., there were 800 miles of line capable of carrying the heaviest traffic, and including the G.T. Western, 956 miles of double track, against 404 miles in April, 1895. The freight cars in 1894 numbered 22,486, with a capacity of 399,066 tons, to which there was added the 71 cars of 1,771 tons capacity of the Cincinnati, Saginaw and Mackinaw Ry., making altogether 22,583 cars of 400,837 tons capacity, an average of 17.75 tons per car. These were now represented by 22,174 cars of 530,470 tons capacity, or an average of 23.92 tons per car. In addition there had been added out of capital 4,360 cars of a total capacity of 148,800 tons. Although no addition had been made to the number of locomotives during the ten years, their hauling power had been increased over $\frac{1}{3}$, which had been accomplished by building engines of greater capacity when renewals were made. In 1894 the gross receipts of the whole system were £4,419,340, for 1904 they were £6,996,217, an increase of 58%. The net receipts in 1894 were £1,058,781, in 1904 they were £1,809,067, an increase of 71%. In spite of all the great works and improvements which have been accomplished, the fixed charges of the system have only increased by £56,314, or a little over 4%. Since the payment of dividends was resumed in 1898, the proprietors have received in dividends £3,500,000. The improvement in the value of the property is perhaps best shown by the market value of the securities, and he found on comparing the prices of to-day with the prices of the date when the change in the board was made, that they showed an aggregate improvement in value of considerably over £20,000,000.

He should like to recall, especially for the consideration of those who thought, perhaps, that enough had not been done for the shareholders, how heavily handicapped the company was by the finance of its earlier history. Out of a total capital at present of £69,750,000 only about £45,000,000 had been actually received in cash into the treasury of the company. For instance, of the £13,118,000 of existing preference stocks, first, second and third, no less than £6,000,000 represented unpaid dividends which were capitalized and added to the stocks between the years 1862 and 1872. Again, of the £23,000,000 of ordinary stock, the first £3,000,000 were paid for at par or something approaching par, but as regards the other £20,000,000, not more than 20% represented cash, that is to say, only £4,000,000, which, added to the other £3,000,000, makes a total of £7,000,000 actually received by the company on which there was a capital liability of £23,000,000. While the company's capital stands at £69,750,000, it really is only rep-

resented in cash received by the company by £45,000,000. In 1904 there was distributed in interest and dividends £1,800,000, and if it had not been for the unfortunate watering of the securities in times past, that sum would have admitted 4% to have been paid upon the whole of the company's capital.

The board had not only been careful of the current necessities of the company, but had sought to consolidate and broaden its foundations so as to permit of its availing itself to the fullest extent of the growing development of the Dominion, which promises a future prosperity for Canada to which it is difficult to foresee the limits. From this point of view the directors had recently acquired the Canada Atlantic Ry., and had promoted the G.T. Pacific Ry., both of which undertakings will tend greatly to strengthen the position of the parent company, while the board had surrounded them with every precaution for minimizing the financial risk and responsibility of the G.T.R. With regard to the G.T. Pacific Ry. Co., the directors had thought it their duty to avail themselves of the favorable condition of the money market, and, looking well ahead, they had considered it prudent to make provision for securing the whole of the necessary funds for the completion of the most important portion of the new undertaking—that was to say, the Lake Superior branch, and the 1,200 miles from Winnipeg to the foot of the Rocky Mountains. At their last special meeting, he mentioned that a preliminary arrangement had been made with Messrs. Speyer for the issue of the first quantity of bonds. Those negotiations were successfully carried through, and since then the board had been able, with the concurrence of the Canadian Government, to make an arrangement with the Rothschilds for disposing of the whole of the bonds necessary for the completion of the line. Their minds might, therefore, be entirely at ease as to the capital. Whatever might happen during the next three or four years, while the line was under construction, they would have the satisfaction of knowing that they had obtained the money, and that they had obtained it on favorable terms, for carrying out the whole of the prairie section and the Lake Superior branch. He considered that it was a matter for congratulation that the eminent firm of Rothschilds had associated themselves with Canadian finance, and especially with the finances of this company. The latest advices from Canada were to the effect that construction upon the Lake Superior branch would commence in June, and upon the prairie section not later than July.

He closed by moving the formal resolution adopting the report, and statement of accounts, and declaring dividends as follows:

On the 4% Guarantee Stock.....	2%
On the First Preference Stock....	5%
On the Second Preference Stock...	5%

A. W. Smithers seconded the resolution, which was passed. The retiring directors were re-elected, a resolution passed reducing the number of directors to ten, and the retiring auditors were re-elected.

The Canadian Coal and Ore Dock Co. is going to build a combined coal and ore dock at Port Arthur, Ont. The first section will be 3,000 by 600 ft., and will be completed this year. The site lies between the Neebing River and MacIntyre Creek, and it is proposed to dredge a channel, about 200 ft. wide and 3,000 ft. in length, from the harbor, which will cross the end of the dock, and to divert into it the waters of the creek and river. The Barnett and Record Co., of Minneapolis, Minn., are the contractors. The dock will be open to the public and all coal dealers will be permitted to use it, a fixed tariff being arranged for handling and storage.

Complaints Respecting Freight Rates.

In the House of Commons recently the Committee on Agriculture and Colonization presented the following report:—

"The committee have had urgent and repeated complaints laid before them to the effect that farmers in Ontario were handicapped in the export of their products and their profits correspondingly reduced by discriminating rates charged by Canadian railways as between competing and non-competing points within Canada; and also by discrimination by these same railways running through territory in the U.S., by their giving farmers of the latter much more favorable freight rates than that given to the farmers of Canada for similar and comparative distances to market points. The committee appointed a sub-committee to investigate these complaints, with authority to procure evidence, the committee having in view, if substantial evidence of the said charges were procured, to recommend a reference of the case to the railway commission. The sub-committee having made report to the committee substantiated by the evidences contained in the schedules hereto annexed, as an essential part of this report, and the committee having taken the report and evidence therewith into consideration, have adopted it as their own report, and as such, submit it with the schedules annexed to the consideration of the House, as follows:—

"LIVE STOCK.—Live stock shipments via G.T.R. from U.S. points. Tariff L.C.C. no. A-708 shows rates charged on cattle, sheep and hogs from Bancroft, Belsay, Duffield and other points to New York, Boston and Montreal.

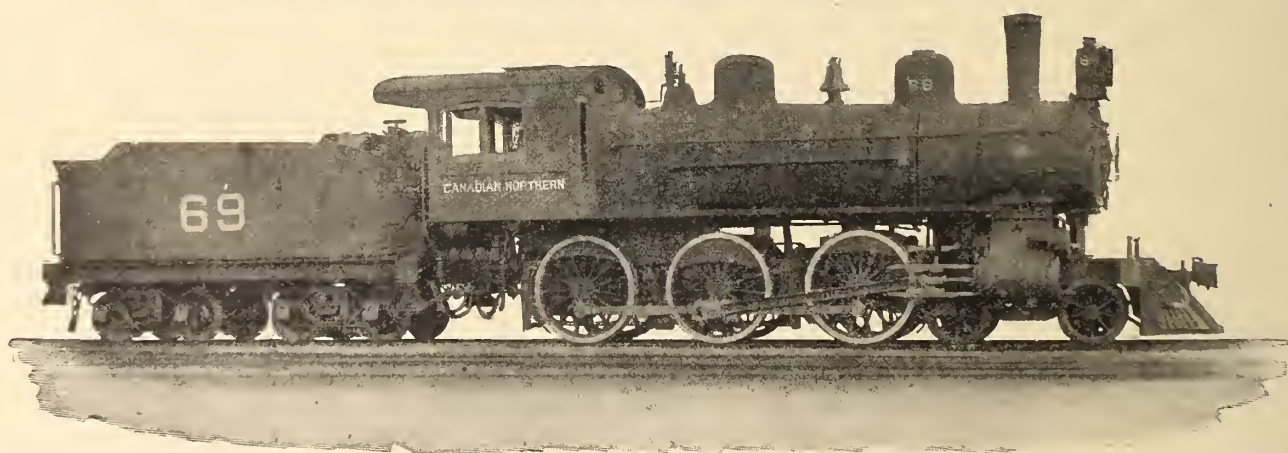
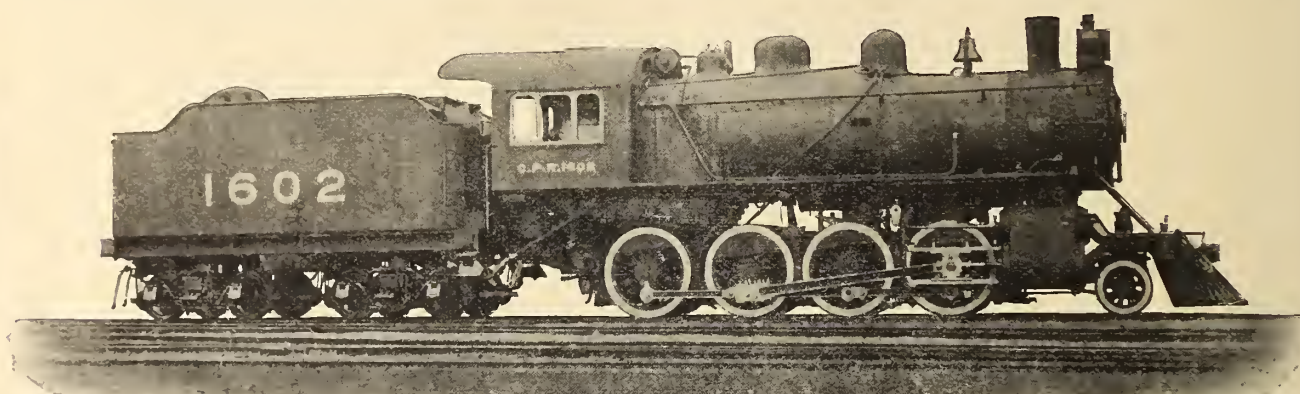
"Live stock shipments via G.T.R. in Ontario. Tariff E-54 shows rates charged from points in Ontario, namely, Sarnia, Windsor, Ridgeway, Thamesville, Stratford, Lucknow, Bothwell, London, Listowel, and other points to New York, Boston and Montreal. Tariff (G.T.R.) I.C.C. A-748, shows the local rates charged on horses, cattle, sheep and hogs in the U.S. The standard mileage tariff (Canada-Atlantic Ry.) on live stock, C.R.C. no. 1, shows local rates charged on similar shipments in Canada. Tariff (Michigan Central Rd.) C.R.C. 409, shows rates on live stock from the United States to the sea-board. Tariff (G.T.R.) C.R.C. no. W-8, shows rates on live stock from the U.S. to the sea-board. Tariff (G.T.R.) C.R.C. no. 54, shows the same. Comparison of the above tariffs will show the material difference in favor of the U.S. farmer. The above tariffs will show the rates charged out of U.S. territory from points under the exclusive control of the G.T.R. to be very much lower than from points on its line in Canadian territory. This applies to shipments for both local and export, for instance, rates from Chesterfield, Mt. Clemens, Lennox, New Haven, etc., on cattle for export is 22c., whereas from Windsor, Sarnia, London, etc., the rate is 2c. per 100 lbs. On shipments between local points the difference is very much greater.

"GRAIN AND GRAIN PRODUCTS. Tariff (G.T.R.) no. B-12, shows rates on grain and grain products to New York, Boston, and Philadelphia and Montreal. Tariff supplement to C.R.C. 81, tariff G.B.J. 16, tariff G.B.J. 17 shows the rates charged on local shipments in Canada. Tariff C.R.C. no. W-18 rates on grain products to the sea board points for local and export shipments, G.F.D. 859, shows local rates on grain and grain products in the U.S. On grain and grain products the rates from U.S. points are very low when compared with the rates from Canadian points, more particularly when for local use or shipment via U.S. points for export. The rate from Chesterfield, Lennox, Mt. Clemens, New Haven, etc., in the U.S., for export on grain is 2c. and on grain products 11c. For local shipment the rate would be 13½c. to New

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York and 15½c. to Montreal, the shorter distance. From Canadian territory the rates would be for export from Windsor, Sarnia, and east 500 miles 13½c. and over, while for local shipments to Montreal from Windsor and other intermediate points the rate would be 19c., or 5½c. above the New York rate.

"BUTTER, EGGS AND CHEESE.—Tariff (G.T. Ry.) G.D. 57, shows the rates charged on shipments in Canada for export only. Tariff R.R.G.B. 12, rates on general merchandise in Canada to the sea-board for export shows rates from U.S. points to the sea-board. Tariff C.R.C. no. W-17, shows rates from the U.S. points to the sea-board as class rates. Tariff C.R.C. no. E-196, the same. Tariff G.J. no. 20, shows the prevailing rates charged on butter, eggs, and cheese from various points in Ontario to the sea-board. By comparing the above it will be seen that for local consumption in the U.S. cheese is carried 382 miles for 23½c., while for 400 miles in Canada the rate is 36c., or 12½c. per 100 lbs. in favor of the U.S. producers. It will also be seen that 7c. per 100 lbs. more is charged from Lucknow, Listowel, Palmerston, and other points in that vicinity than from London, Ingersoll and Woodstock to Montreal. The rates are not only very high, but no allowance is made for car-load shipments, notwithstanding the enormous proportions to which the trade is developing.

"GENERAL MERCHANDISE.—Tariff C.R.C. no. W-17, shows rates on general merchandise in effect from U.S. territory to the sea-board, and also from points in Canada. Distances are not considered.

"BEANS.—We also desire to call the attention of the committee to the fact that beans are shipped in class rates instead of being hauled at commodity rates, the same as grain products—their weight is the same—they are shipped in the same manner, and their value as a rule is about that of wheat. Tariff G.D. no. 57, shows rates on packing-house products to be very high, and distance not considered.

"TAN BARK.—Tariff (Ottawa, Arnprior and Parry Sound) shows rates on tan-bark. Very high for service rendered.

"We also desire to call the attention of the committee to the fact that the rates on imports are from 50 to 60% less in Canada than the rates on commodities exported, whereas in the U.S. both the exports and imports as a rule are equal. We might enlarge indefinitely, but the purpose in view will be served by pointing out a number of instances which illustrates the difference in rates given to Americans as compared to those given to Canadians. It does not appear fair to favor those who have contributed nothing to the building of our national highways, but on the contrary, they not only have lower rates accorded to their products, but in addition tax their railways heavily as well."

The recommendation of the committee that the report, with the schedules annexed thereto, be referred to the Railway Commission for its consideration and decision forthwith, was adopted by the House of Commons.

Railways in Nova Scotia.

The report of the Provincial Engineer of Nova Scotia, for the year ended Sept. 30, 1904, covers the first year of the work of R. McColl, who succeeded M. Murphy, D.Sc., who held the position for over 30 years. It points out that the railways of the Province may be classed under three heads:—first the 467 miles of the Intercolonial Ry., owned and operated by the Dominion Government; second, the 231 miles of the Dominion Atlantic Ry., owned by a private company, and declared to be for the general advantage of Canada; and third, all other lines which under the terms of the British North America Act come under

the jurisdiction of the Province. These lines with their mileage are:

	Miles.
Canada Coals and Ry. Co.	12
Cape Breton Ry.	31
Cumberland Ry. and Coal Co.	32
Halifax and South-Western Ry.	96
Halifax and Yarmouth Ry.	50
Inverness Ry. and Coal Co.	61
Midland Ry.	58
Nova Scotia Steel and Coal Co.	12½
Sydney and Louisburg Ry.	39
	391½

The returns of traffic upon these lines show a gradual improvement, with the exception of the Sydney and Louisburg Ry. This company has adopted a new system of making up its accounts, and does not show anything for the freight handled for its own purposes; but there has also been some falling off in revenue due to the operations of the Sydney and Glace Bay Ry., an electric line, in which the Dominion Coal Co., which also runs the S. and L. Ry., has a half interest. A detailed examination of the cost of operating shows quite a variation among the different roads. With regard to the maintenance of way, which varies according to the traffic, the cost per mile varies from \$170 to \$1,200, but on the roads which are largely employed in carrying coal, the variation is from \$400 to \$1,200, while on those with ordinary traffic it is from \$170 to \$210 a mile. With regard to locomotive power which should be largely in proportion to train mileage, the cost on the different roads runs from 20c. to 60c. per train mile. The amount of traffic would also be quite a factor in determining the cost of locomotive power, and this is borne out by the figures, as the coal roads, where the loads are much heavier, vary from 33c. to 60c., while the others only range from 20c. to 25c. The traffic expenses vary from 11c. to 29c. per mile of railway. As a sample of the increase in railway traffic, take the Halifax and South-Western Ry., formerly the Central Ry. In 1895, the returns per mile per year were \$613.83; during the year just closed they were \$951.25, an increase of 50% in ten years. The return of accidents for the year shows that only one passenger was killed; this was by jumping from a train. The number of accidents to employees has been larger than usual. Formerly not much attention was paid to this subject as it was claimed by most of the lines that it was a matter that was under the jurisdiction of the Dominion Government, but as owing to recent legislation this point has been settled the Provincial Department is paying more attention to it.

The subsidy accounts at Sept. 30, 1904, showed the following payments, etc.:

	Total subsidy.	Paid in 1904.	Out- standing
Cape Breton Ry. \$	96,000.00	\$ 6,990.00	\$ 71,990.00
Halifax and Yarmouth Ry.	160,000.00	7,976.91	156,449.33
Inverness and Richmond Ry.	244,000.00	11,000.00	
Midland Ry.	183,510.40	7,000.00	

The Halifax and South-Western Ry. does not receive a subsidy in the same way as the other lines. To Sept. 30, 1904, the total paid was \$1,268,699.71, of which \$1,165,000 was paid to the company, \$640,000 being, in 1904, and the remaining \$103,699.71 was paid to various persons under the authority of Chap. 26 of the Statutes of 1903.

The business heretofore carried on in Toronto by the firm the Polson Iron Works has been acquired by Polson Iron Works, Limited. The new company has acquired all the assets of the business and has assumed its liabilities.

The Robb Engineering Co., Amherst, N.S., has sold a 375 h.p. corliss engine and a 150 h.p. Robb-Mumford boiler to the town of Glace Bay, N.S., for an extension of its electric lighting plant, and also a 450 h.p. corliss engine to the city of Moncton, N.B., for direct connection to electric generator.

June Birthdays.

Many happy returns of the day to—

Harry Abbott, President Vancouver and Lulu Island Ry., ex-General Superintendent C.P.R., Vancouver, B.C., born at Abbotsford, Que., June 14, 1829.

F. F. Backus, General Freight and Passenger Agent, Toronto, Hamilton and Buffalo Ry., Hamilton, Ont., born at Rochester, N.Y., June 4, 1860.

Archer Baker, European Traffic Manager C.P.R., London, Eng., born at York, Eng., June 21, 1845.

F. P. Brady, General Superintendent Lake Superior Division C.P.R., North Bay, Ont., born at Haverhill, N.H., June 22, 1853.

A. H. N. Bruce, C.E., Assistant Chief Engineer, Toronto and Hamilton Ry., Toronto, born at Ballyscullion, County Derry, Ireland, June 18, 1854.

J. E. Dalrymple, General Freight Agent, Central Vermont Ry., St. Albans, Vt., born at Montreal, June 1, 1869.

W. H. D'Arcy, General Claims Agent, C.P.R. Western Lines, Winnipeg, Man., born at Manorhamilton, Leitrim, Ireland, June 23, 1859.

A. E. Doucet, Division Engineer, Transcontinental Ry. Surveys, Quebec, born at Montreal, June 9, 1860.

W. F. Fitch, President and General Manager, Duluth, South Shore and Atlantic Ry. and Mineral Range Rd., Marquette, Mich., born at Circleville, Ohio, June 28, 1839.

A. A. Goodchild, Auditor of Stores and Mechanical Accounts C.P.R., Montreal, born at Peckham, London, Eng., June 3, 1866.

E. J. Hebert, General Agent C.P.R. Passenger Department, Montreal, born there June 18, 1864.

G. W. Hibbard, General Passenger Agent, Duluth, South Shore and Atlantic Ry. and Mineral Range Rd., Marquette, Mich., born at St. John's, Que., June 15, 1852.

Carl Howe, Assistant General Freight Agent Michigan Central Rd., Buffalo, N.Y., born at Berrien Springs, Mich., June 11, 1870.

L. R. Johnson, Assistant Superintendent of Rolling Stock, C.P.R., Montreal, born at Abingdon, Berks., Eng., June 22, 1855.

J. F. Jones, General Yardmaster G.T.R., Point St. Charles, Que., born at Prairieville, Ill., June 4, 1851.

L. K. Jones, Secretary Department of Railways and Canals, Ottawa, born at Port Hope, Ont., June 9, 1849.

Jas. Kent, Manager C.P.R. Telegraphs, Montreal, born there June 15, 1854.

A. C. Lytle, Superintendent and General Freight and Passenger Agent, Orford Mountain Ry., Eastman, Que., born at Hemmingford, Que., June 6, 1854.

W. R. MacInnes, Freight Traffic Manager, C.P.R., Montreal, born at Hamilton, Ont., June 7, 1867.

E. H. McHenry, Fourth Vice-President New York, New Haven and Hartford Rd., and ex-Chief Engineer, C.P.R., born at Cincinnati, Ohio, June 25, 1859.

C. E. McPherson, General Passenger Agent, C.P.R., Winnipeg, born at Chatham, Ont., June 7, 1861.

W. D. Matthews, director C.P.R., Toronto, born at Burford, Ont., June 22, 1850.

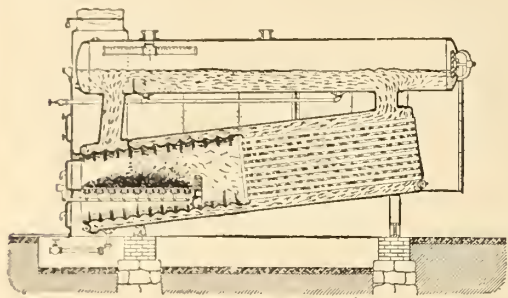
R. H. Morris, General Baggage Agent, C.P.R., Montreal, born at Quebec, June 5, 1869.

L. Mulkern, canvassing freight agent, C.P.R., Toronto, born at London, Ont., June 18, 1871.

F. Price, Master of Transportation, G.T.R., London, Ont., born at Montreal, June 11, 1864.

Jas. Stephenson, ex-Chief Superintendent, G.T.R., Weston-Super-Mare, Somerset, England, born there June 2, 1837.

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**A CANADIAN INVENTION
MADE IN CANADA FOR CANADIANS
THE BALL-BEARINGS**

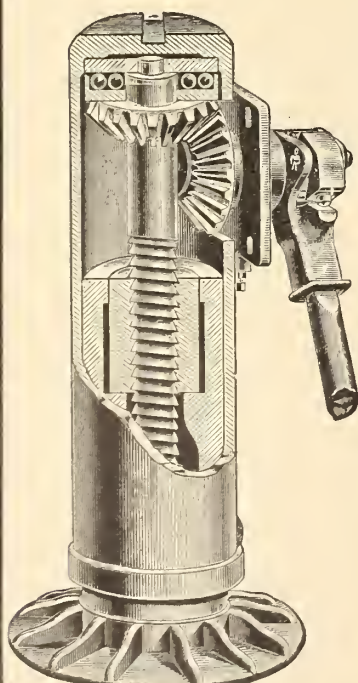
reduce the friction and increase the power of the Jack.

THE GEARS

are cut from solid steel forgings, thereby giving highest efficiency and greatest durability.

THE SCREW

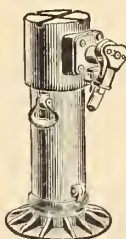
runs in a Phosphor Bronze Nut and is covered by a sliding sleeve which takes all the side strain, prevents the Screw from bending, and protects the working parts from Grit and Rust.



Sectional View of Norton Jack.



Foot-Lift Jack.



35 Ton Jack.



Journal Jack.

Made in 50 styles—8 to 70 tons capacity.

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COATICOOK, PROV. QUEBEC.

Stock carried by

W. H. C. MUSSEN & CO., Montreal.

Dominion Atlantic Ry. Annual Meeting.

The ninth annual meeting of shareholders was held in London, England, recently. C. F. Kemp, the President, in presenting the annual report—in which the payment of a dividend of 3% on the preference shares was proposed—said the gross income for 1904 was about £10,000 in excess of that of 1903, but this was reduced by increased expenditure to about £1,300. The working of the railway in the past year had not been altogether favorable. The early part of the season opened very well, but in the summer, during the period when the company's pleasure traffic was conducted, the weather was very doubtful, and this, no doubt, checked traffic to which the directors attached considerable importance. Their income was also, no doubt, affected to some extent by the St. Louis Exhibition. The fruit crop, although a very fair one, was not so good as to quality as British fruit, and the company had suffered from this. He thought the directors might fairly congratulate the proprietors on the position which the railway had attained. With out prophesying, he had no doubt whatever that the development on the line would go on steadily. If the directors that day obtained the proprietors' sanction to the proposed purchase of the Midland Ry. of Nova Scotia, he believed that the future of the company would be assured. Negotiations took place, and they had the railway inspected and tested in every way they could. The conclusion they arrived at was that the line had been remarkably well built. The railway ran from Windsor to Truro, where it joined the Intercolonial Ry. The latter ran from Truro up to Sydney, which was in the extreme east, and near which there were considerable deposits of coal and iron which were being worked. They fully believed that between Sydney and Truro there would be a considerable amount of passenger traffic, which would pass thence, via Yarmouth, to the U.S. Last year they opened communication with New York by running a steamer there during the summer, and this had added considerably to their returns. The acquisition of the Midland Ry. would cost about £250,000. The directors had communicated on the subject with two or three of the principal shareholders and they were entirely in accord with the policy of the board.

P. Giffins, the General Manager, who was present from Kentville, N.S., spoke in support of the acquisition of the Midland Ry., stating that its cost, compared with that of similar railways in Nova Scotia and elsewhere in Canada, was very fair and reasonable. With the Midland Ry. forming an integral part of the Dominion Atlantic system a large number of people would be correspondingly benefited. Nova Scotia, which for so long had been a favorite playground for wealthy residents of the United States, was now becoming a field for investment both in Canada and the U.S. The resolution was passed. The company does not publish its annual report.

At a subsequent special meeting the shareholders approved of the purchase of the Midland Ry.

Canadian Northern Ry. Operation.

The official time-table of the Canadian Northern Ry., which came into force in April, shows 1868.2 miles in operation against 1592.6 miles when the December time-table went into operation. The line is now operated under E. A. James, Manager, in four districts, as follows:—

DISTRICT 1—Port Arthur to Winnipeg, 438.7 miles; Stanley Jct. to Gunflint, 66.9 miles; total, 505.6 miles. Superintendent, W. A. Brown; Chief Train Dispatcher, J. H. Scott; train dispatchers: W. E. Roberts, E. S. Hunt, J. Ferguson. Offices, Port Arthur, Ont.

DISTRICT 2—Carman Jct. to Leary's, 63.1 miles; Winnipeg to Emerson, 63.5 miles; Morris to Brandon, 145.3 miles; Hartney Jct. to Hartney, 50.8 miles; Emerson to Ridgeville, 10.1 miles; Oak Point Jct. to Oak Point, 54 miles; Greenway to Adelphi, 51.8 miles; total, 438.6 miles. Superintendent, A. Wilcox; Chief Train Dispatcher, J. Abbott; train dispatchers, W. A. Stewart, T. J. Brown, W. Ingles. Offices, Winnipeg.

DISTRICT 3—Portage Jct. to Gilbert Plains Jct., 180.8 miles; Gilbert Plains Jct. to Mel-fort, 298.5 miles; Sifton Jct. to Winnipegosis, 20.7 miles; Delta Branch Jct. to Delta, 14.8 miles; Necpawa Jct. to McCreary Jct., 70.4 miles; Rossburn Jct. to Clan William, 20.2 miles; Arizona Jct. to Brandon Jct., 51.5 miles; Brandon Jct. to Carberry Jct., 22.8 miles. Total, 679.7 miles. Superintendent, J. W. Dawsey; Chief Train Dispatcher, S. S. Foley; train dispatchers, R. Nelson, F. T. Peebles. Offices, Dauphin, Man.

DISTRICT 4—Gilbert Plains Jct. to Kamsack, 97.9 miles; Kamsack to Humbolt, 146.4 miles. Total, 244.3 miles. Superintendent, J. R. Cameron.

Canadian Northern Ry. Earnings, etc.

Gross earnings for Mar., \$273,100; working expenses, \$202,500; net earnings, \$70,600 against \$201,900 gross; \$142,300 working expenses, and \$59,600 net for Mar., 1904. Gross earnings for nine months ended Mar. 31, \$2,850,600; net earnings \$942,200 against \$2,316,800 gross, and \$785,200 net for same period 1903-04.

Approximate earnings for April, \$282,900 against \$234,300 for April, 1904.

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1903-04, from July 1, 1904:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July	\$1,398,833.95	\$2,949,181.81	\$1,449,652.14	\$131,125.02+
Aug.	4,474,237.64	2,946,307.21	1,527,930.43	93,827.93+
Sept.	4,220,876.03	2,952,068.47	1,268,807.56	66,541.75+
Oct.	4,743,901.93	3,177,848.02	1,566,053.91	87,913.10+
Nov.	4,751,970.43	3,082,395.09	1,669,575.34	191,593.56+
Dec.	4,562,142.45	2,899,473.62	1,662,668.83	81,523.57+
Jan.	3,252,501.93	2,820,833.46	422,668.47	65,016.44+
Feb.	3,056,094.05	2,753,922.73	302,171.32	219,630.51+
Mar.	4,132,901.50	2,959,134.40	1,182,827.04	331,972.76+

\$37,593,579.91 \$26,541,165.47 \$11,052,414.44 \$1,093,318.44+

Approximate earnings for April, \$4,196,000 against \$4,030,000, for April, 1904.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Mar., \$238,391.63; net earnings, \$91,406.02 against \$190,508.00 gross and \$50,617.12 net for Mar., 1904. Net earnings for nine months ended Mar. 31, \$666,209.41, against \$388,715.08 for same period, 1903-04. Approximate earnings for April \$227,949 against \$186,279 for April, 1904.

MINERAL RANGE RY.—Approximate earnings for April, \$44,431, against \$48,697 for April, 1904.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Mar., \$771,545.84; net earnings, \$399,809.95, against \$468,816.58 gross and \$168,490.59 net for Mar., 1904. Net earnings for nine months ended Mar. 31, \$3,341,637.39, against \$2,580,198.41 for same period 1903-04. Approximate earnings for April, \$626,664, against \$472,088 for April, 1904.

Canadian Pacific Railway Land Sales.

	Acres.	Amount.		
	1904-05	1903-04	1904-05	1903-04
July	36,425.75	267,647.32	\$177,473.94	\$1,020,404.70
Aug.	15,669.90	293,339.45	88,735.88	1,217,529.81
Sept.	16,470.02	60,441.12	73,642.96	268,757.99
Oct.	23,792.84	15,950.07	104,843.47	236,611.59
Nov.	23,392.84	22,563.95	112,261.70	107,365.21
Dec.	32,196.59	30,146.00	142,583.40	125,676.00
Jan.	34,500.41	116,840.78	141,750.50	386,649.88
Feb.	27,503.56	147,290.69	116,278.76	73,428.94
Mar.	15,906.61	12,992.06	87,576.00	59,660.03
April	22,030.37	24,064.44	125,210.08	116,349.10
	247,888.89	828,721.88	\$1,170,356.69	\$3,666,433.34

Grand Trunk Ry. Earnings, Expenses, etc.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1905.	1904.	Increase.	Decrease.
Jan.	\$2,550,340	\$2,253,378	\$302,962	....
Feb.	2,163,683	1,649,525	514,158	....
Mar.	2,911,207	2,649,779	261,428	....
April	2,850,125	2,838,046	11,079	....
	\$10,481,415	\$9,391,628	\$1,089,787	....

GRAND TRUNK RY. CO.

The following figures relate to the individual lines, and are made out in sterling:

Revenue for Mar.:				
	1905.	1904.	Increase.	Decrease.
Gross receipts	£1464,300	£431,600	£32,700	....
Working expenses	324,800	328,600	....	£3,800
Net profit	£139,500	£103,000	£36,500	....
Aggregate from Jan. 1 to Mar. 31:				
	1905.	1904.	Increase.	Decrease.
Gross receipts	£1,236,900	£1,047,800	£179,100	....
Working expenses	945,500	931,300	14,200	....
Net profit	£281,400	£116,500	£164,900	....

GRAND TRUNK WESTERN RY. CO.

Revenue for Mar :				
	1905.	1904.	Increase.	Decrease.
Gross receipts	£106,000	£98,300	£ 700	....
Working expenses	85,000	77,900	7,100	....
Net profit ...	£21,000	£20,400	£ 600	....
Aggregate from Jan. 1 to Mar. 31:				
	1905.	1904.	Increase.	Decrease.
Gross receipts	£268,200	£244,000	£24,200	....
Working expenses	232,800	223,800	9,000	....
Net profit.....	£35,400	£20,200	£15,200	....

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.

Revenue for Mar.:				
	1905.	1904.	Increase.	Decrease.
Gross receipts . . .	£ 27,700	£ 14,600	£13,100	...
Working expenses	23,000	14,600	8,400	....
Net profit . . .	£ 4,700	....	£ 4,700	....
Aggregate from Jan. 1 to Mar. 31:				
	1905.	1904.	Increase.	Decrease.
Gross receipts . . .	£ 72,500	£ 54,500	£18,000	....
Working expenses	58,200	48,000	10,200	....
Net profit . . .	£ 14,300	£ 6,500	£ 7,800	....

TRAFFIC RECEIPTS OF THE SYSTEM.

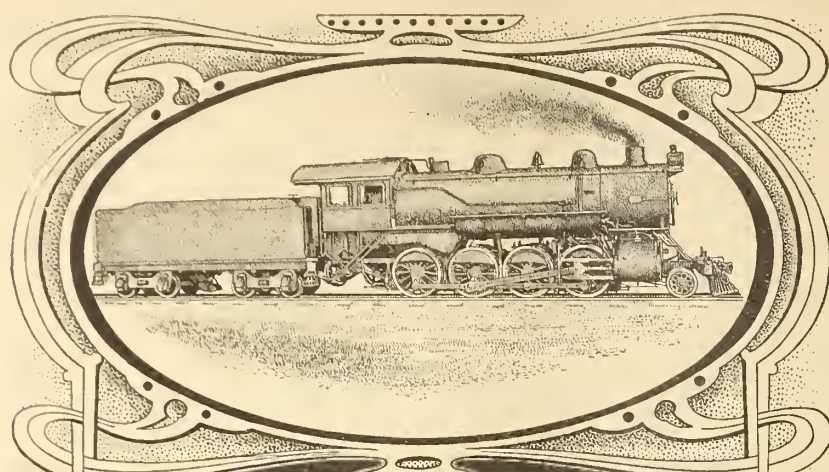
Aggregate from Jan. 1 to April 30:				
	1905.	1904.	Increase.	Decrease.
Grand Trunk.	£1,693,055	£1,522,073	£170,982	..
G. T. Western	367,388	336,887	30,501	....
D. G. H. & M.	93,274	70,826	22,448	....
Total.....	£2,153,717	£1,929,786	£223,931	....

Atikokan Iron Co.—The organization of the Atikokan Iron Co., which was recently incorporated under the Dominion Companies' Act, has been completed. The officers are: President, D. D. Mann, Toronto; Vice-President, J. C. Hunter, Duluth, Minn.; directors, W. Mackenzie, Toronto; H. Sutherland, Winnipeg; Z. A. Lash, G. DeC. O'Grady, Toronto; J. S. White, Chicago, Ill.; Executive Committee, H. Sutherland (chairman), J. C. Hunter and Z. A. Lash. The head office of the company is at Toronto, and the capital is placed at \$1,000,000. It is formed to carry on the business of a mining, milling, reduction and development company, and a number of other businesses that may be conducted in connection with the same. The principal object is to develop iron ore mines on the Atikokan iron range on the Canadian Northern Ry., west of Port Arthur, Ont. Work is to be commenced at once on the erection of a plant which will include a blast furnace, coke ovens, foundry, etc. R. Jones, formerly assistant superintendent of the Illinois Steel Co., has been appointed Superintendent.

Westinghouse Fan Motors, desk and wall types, are described in two little booklets issued by the Canadian Westinghouse Co.

The Deputy Minister of Agriculture for the Dominion has published regulations relating to the cleansing, etc., of stock-cars conveying stock from the U.S. into Canada, and otherwise regulating the importation of live stock by rail.

Judge Winchester of Toronto has completed taking evidence at London, St. Thomas and other Ontario points in regard to the alleged employment of aliens, and the discharge of Canadians by the Pere Marquette Rd., and will make a report in due course. The investigation was ordered by the Governor in Council under the authority of Chap. 114 of the Revised Statutes of Canada.



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AUTOMATIC LOCOMOTIVE BOILER WASHER**
FOR CHANGING WATER, WASHING AND FILLING LOCOMOTIVES
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FIVE TO SEVEN HOURS SAVED OVER PRESENT METHODS

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C.P.R. LANDS

THE CANADIAN PACIFIC RAILWAY COMPANY have 12,000,000 acres of choice farming lands for sale in Manitoba, Assiniboia, Saskatchewan and Alberta. Manitoba lands and Assiniboia lands east of third meridian, \$4.00 to \$10.00 per acre according to quality and location. Lands in South-Western Assiniboia and Southern Alberta, \$3.50 to \$8.00 per acre. Ranching lands generally \$3.50 to \$4.00 per acre. Northern Alberta and Saskatchewan lands generally \$6.00 to \$8.00 per acre. Maps showing the lands in detail will be sent free on application.

TERMS OF PAYMENT.

An actual settler may purchase not more than 640 acres, on the ten instalment plan by paying a cash instalment at time of purchase, interest at six per cent. on the unpaid purchase money at the end of the first year, and the balance of the principal with interest in nine equal instalments annually thereafter as shown in the following table:—

160 Acres at \$3.50 per acre, cash payment \$83.90, first year's interest \$28.58 and nine instalments of \$70.00	
" " 4.00 " " " 95.85, " " " 32.64 " " " 80.00	
" " 4.50 " " " 107.85, " " " 36.73 " " " 90.00	
" " 5.00 " " " 119.85, " " " 40.81 " " " 100.00	
" " 5.50 " " " 131.80, " " " 44.89 " " " 110.00	
" " 6.00 " " " 143.80, " " " 48.98 " " " 120.00	

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

DISCOUNT FOR CASH.

If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. on five-sixths of the purchase money.

Interest at six per cent. will be charged on overdue instalments.

F. T. GRIFFIN,

Land Commissioner C.P.R. Co., Winnipeg.

CANADA NORTH-WEST LAND CO

This Company has 750,000 acres of selected lands in Manitoba and Assiniboia which offer excellent opportunities to settlers and investors who desire to secure good lands in well-settled districts. These lands are on sale at the Company's Office at Winnipeg, and at the various land agencies of the Canadian Pacific Railway Company.

IT WAS A BRAKE ROD

A heavily loaded, 12-ton car, equipped with Sterling Safety Brakes, ran down a ten per cent. grade April 23, derailed on a curve and telescoped a house. The "working" chain of the brake had broken but the "safety" chain, designed for such emergencies, held uninjured. Then a brake rod parted and the car got away. Reversing the current disabled the motors without stopping the car. This accident shows:

1st. That brake chains break from wear or other causes.

2nd. That reversing the current cannot be relied upon for stopping.

3rd. That the safety chain of the Sterling Safety Brake, attached, always ready and unworn, is a strong assurance of security.

**STERLING-MEAKER
COMPANY**

NEWARK, N.J., . . . U.S.A.

Temiskaming and Northern Ontario Ry.

Replying to a question in the Ontario Legislature recently, the Minister of Public Works stated that the expenditure on the construction of this line to Mar. 1 was \$4,882,855.51, of which \$4,240,114.82 was on the first division, and \$642,740.64 on the second division. During April there was expended \$7,993.28 on the first division, and \$118,362.16 on the second division, making a total of \$5,009,210.95.

Another question elicited the following information as to the quantities estimated, and the actual quantities paid for to Jan. 30 last in the construction of the first 112 miles of the railway.

	Estimated.	Paid For.	Price
Solid rock, cu. yds.....	200,000	882,542	\$1.70
Loose rock, cu. yds.....	100,000	68,367	.50
Hardpan, cu. yds.....	850,000	774,123	.38
Earth, cu. yds.....	1,500,000	764,695	.22
Permanent trestle, ft.....	4,000,000	1,341,367	.25
Temporary trestle, ft.....	10,000	687,241	.25
Culverts.....	1,600,000	751,051	.24

The third annual report of the commissioners details the work done during 1904. The report is divided into five sections—two dealing with construction, from North Bay to New Liskeard, and from New Liskeard northerly; one with rolling stock and equipment, one with finances and the last on the proposed land grant.

In connection with the construction between North Bay and New Liskeard, the contractor was given an extension of three months' seasonable weather to complete trestle filling and ballasting, which left the line in his hands until Aug. 15, 1904. In Sept. J. H. Black was appointed General Freight and Passenger Agent, to arrange tariffs, etc., and was subsequently appointed General Superintendent to operate the line. Reference is made to the erection of water tanks, station houses, and section houses on the line, the laying out of yards, etc. Stations were erected at Temagami, Haileybury, Whitefield, Montreal River and New Liskeard. The progress on the telegraph line not being satisfactory, a contract was let for the work at \$65 a mile.

Tenders were asked for early in May, 1904, for the construction of the line northerly, the commissioners undertaking to deliver rails, ties, etc., at New Liskeard. Four tenders were received, and the contract was awarded to A. R. Macdonell, who was the contractor for the first section of the line. Upon the estimated quantities the prices tendered worked out as follows:

A. R. Macdonell.....	\$1,523,650.00
Larkin & Sangster.....	1,681,325.00
Battle, Conlon & Armstrong..	2,354,642.50
B. D. Steacy.....	2,756,950.00

A contract was entered into with A. R. Macdonell and the work proceeded. The plans were submitted to Jos. Hobson, Chief Engineer, G.T.R.; who, in reporting upon the first 47 miles, said there are 44 curves, with an aggregate length of 57,717 ft., or say 10.93 miles out of a total length of 47 miles, which is very satisfactory. The curvature varies from 1° to 4°, and Mr. Hobson said that there were on lines ranking among the best on the continent more objectionable curves than any proposed. The gradients were favorable, the maximum being $\frac{1}{2}$ of 1% for a total distance of five miles. Taking the line as a whole the gradients are remarkably good. The elevation of subgrade at station 0 at the south end is approximately 648.5 ft. above datum; and at milepost 46 it is 1,024 ft.; the gradients are therefore favorable to southbound traffic. The contract called for the laying of 25 miles of track by the end of 1904.

The commissioners rented four locomotives to the G.T.R. at \$10 a day each between Feb. 12 and April 24, and subsequently rented four locomotives and a num-

ber of flat cars to A. R. Macdonell for ballasting at \$10 a day per locomotive, and 25 cents a day for each car. The total revenue from rolling stock was \$18,891.83, of which \$2,627.18 was received in cash from the G.T.R., and the balance deducted monthly from the progress payments to the contractor. The following equipment was ordered: three first-class passenger coaches, four second-class coaches, two combination baggage, mail and express cars, to be equipped with Westinghouse quick action brakes, which were delivered in Sept. and Oct.; 50 flat cars, one baggage and mail car, and 10 stock cars from the Crossen Manufacturing Co., Cobourg, Ont.; 25 flat cars, two conductors' vans and a snow plow from Rhodes, Curry & Co., Amherst, N.S. Two flanger cars and 25 flat cars were also purchased.

The statement of receipts and expenditure showed total receipts of \$5,859,252.03, of which \$228.40 was for cordwood sold in 1903, and \$19,019.63 for cordwood sold, and rent of engines, etc., the balance being a loan from the Province. The expenditure for 1903 was \$2,020,320.82, and for 1904 \$2,484,245.19, total \$4,504,566.01, leaving a balance of \$1,354,686.02.

The Chief Engineer, W. B. Russell, in his report referred to the completion of the 112.95 miles from North Bay to New Liskeard, with its water tanks, telegraph line, fencing through the settled townships, and station buildings, and to the survey work on the line north of New Liskeard. The work on this section turned out comparatively light on the first 32 miles, although there were one or two cuts; from mileage 32 to mileage 56, the work turned out heavy, and from mileage 56 to mileage 65, light. The maximum and ruling gradient was .5% rising north, and .4% rising south with compensation for all curves of .04% per degree, and advantage being taken in places of velocity or momentum gradients as high as .75% to reduce the work. The maximum curve held throughout is 4° with a radius of 1,432 ft. There are two heavy stream crossings at mileage 25 and 33 respectively, one being 100 ft. deep, and 700 ft. long; and the other 100 ft. deep and 550 ft. long at the top. They are to be crossed with steel trestles with 200 ft. and 150 ft. spans on the centres. Owing to the low ruling gradient, it is necessary to have some heavy cuts and fills in the broken country, one near the 36th mile is 70,000 cubic yards. At the end of 1904 the grading and track laying had been completed to the Blanche River, 25 miles from New Liskeard; grading had been done in spots to the 40th mile, and a road cut to mileage 70, three miles beyond the Hudson Bay height of land.

The final section of the report deals with the land grant voted for the construction of the line, viz., 20,000 acres a mile. It suggests the setting apart of an area of 6,336 square miles of land in Algoma and Nipissing districts, and north of the height of land for the purpose of sale by the commissioners, and recommends several amendments in the act as to the grant.

Railway Equipment Notes.

The Quebec and Lake St. John Ry. is adding to its rolling stock one passenger and one freight locomotive, a sleeping car and a passenger car.

The report that the C.P.R. had ordered 25 automobile cars, for use on its line in the Rocky Mountains, has, we are officially advised, no foundation whatever.

G. R. Prowse, Montreal, has just filled an order for cooking ranges and complete cooking apparatus for two dining cars which have been built by the Pullman Co.

The C.P.R. between April 14 and May 17, placed the following orders for rolling stock:—34 flat cars, 24 stock cars, with its Angus shops, Montreal; 15 vans, with its Farnham, Que., shops; 4 steam shovels, with the Locomotive and Machine Co., of Montreal.

The Government car Ottawa has been overhauled at the Intercolonial Ry. shops at Moncton, N.B. It has been fitted with electric light, generated by a dynamo propelled from the axles, and there is a storage battery for use when the car is at rest.

The C.P.R. between April 14 and May 17 added the following to its rolling stock:—6 switching locomotives, 6 colonist cars, 264 box cars, and 50 ballast cars, from its Angus shops, Montreal; 4 vans from its Farnham, Que., shops; 13 colonial cars from the United States.

In the House of Commons May 23 a vote was passed amounting to \$1,383,000 for the purchase during the year of 12 passenger and freight locomotives; 25 first-class day coaches, four second-class coaches, four parlor cars, two dining cars, 10 baggage cars and 150 box cars for the Intercolonial Ry.

The Intercolonial Ry. between April 19 and May 20, added to its rolling stock six Pacific type locomotives from the Canadian Locomotive Co., Kingston, Ont., and has also received 50 box cars from the Crossen Car Manufacturing Co., Cobourg, Ont., to replace cars destroyed, etc. The line is not at present in the market for additional rolling stock.

The Crossen Car Manufacturing Co., Cobourg, Ont., has orders on hand for 16 passenger cars of different descriptions for the Intercolonial Ry.; one baggage and mail car and 200 box cars for the Temiskaming and Northern Ontario Ry.; 10 passenger coaches, five baggage cars and 200 box cars for the Canadian Northern Ry.; and 100 flat cars for the James Bay Ry. The company has recently completed 100 flat cars for the James Bay Ry.

The executive officers of the Canada Car Co., Montreal, are: President and General Manager, W. P. Coleman; Vice-President, Sir H. M. Allan; Assistant General Manager, N. S. Reeder, Jr.; General Superintendent, J. Coleman; Auditor, and Assistant Sec. and Treasurer, R. B. Edwards. The company has placed large orders for the machinery for its works with the John Bertman Sons Co., Dundas, Ont.; Williams & Wilson, Montreal, and others.

The Canadian Northern Ry. has placed orders for the following passenger equipment: five 60 ft. baggage cars, 10 passenger coaches with the Crossen Car Manufacturing Co., Cobourg, Ont.; four 1st class passenger coaches, five 60 ft. baggage cars, 10 60 ft. mail and express cars with Rhodes, Curry & Co., Amherst, N.S.; 10 first class coaches and 6 sleeping cars in the United States. The delivery of this equipment is to be made between July and October.

The Canadian Northern Ry. has placed an order with the Canada Foundry Co., Toronto, for five 10 wheel freight and passenger locomotives for the James Bay Ry. Following are the specifications:

CLASS. 4 6 0 141.
CYLINDERS. Diameter, 19 in.; stroke, 24 in.
WHEEL BASE. Driving, 12 ft. 6 in.; total, 22 ft. 6 in.; engine and tender, 50 ft. 4 in.
WEIGHT. In working order on drivers, 111,000 lbs.; on trucks, 30,000 lbs.; total, 141,000 lbs.; tender 120,000 lbs.; total engine and tender, 261,000 lbs.
BOILER Diameter, 62 in.; working pressure, 180 lbs.
TUBES. No. 260, outside diameter, 2 in.
FIREBOX. Length, 102½ in.; width, 42½ in.
HEATING SURFACE. Tubes, 1,618 sq. ft.; firebox, 148 sq. ft.; total, 1,766 sq. ft.; grate area, 30.2 sq. ft.
LENGTH, Etc. Length over all, 60 ft. 2½ in.; width, 10 ft. 2 in.; height of stack above rail, 14 ft. 5 in.
WHEELS. Diameter of driving wheels, 57 ins.
TENDER. Capacity, Ten tons of coal, 5,000 imperial gals. water.

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**RAILWAY AND
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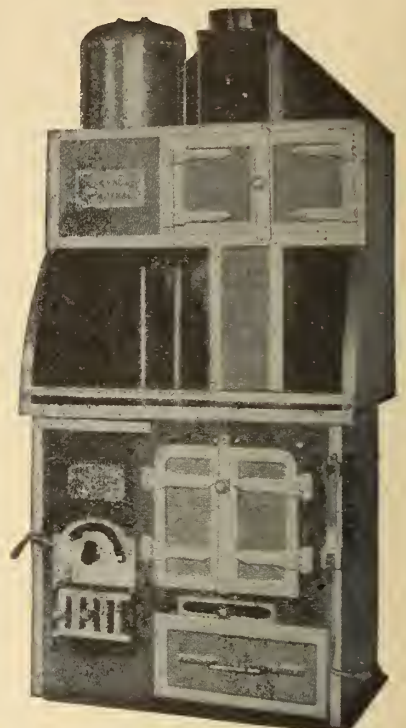
172 GRANVILLE STREET, - HALIFAX, N.S.
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89 PRINCESS STREET, - WINNIPEG, MAN.
403 CORDOVA STREET, - VANCOUVER, B.C.

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Chicago to Hot Springs, Ark., St. Louis, Omaha, St. Paul and Minneapolis, Memphis, Tenn., New Orleans, San Antonio, Texas, and all California

in Special Excursion Pullman Cars. Round Trip Tickets to all South and South west points daily, same to California. Rate same via New Orleans as other direct routes. First and third Tuesdays each month.

Special First-class Round Trip Tickets at one fare plus \$2.00 from Chicago to Home-seekers in South and South-west.

Look The Illinois Central map over and consult

G. B. WYLLIE,

Canadian Passenger Agent,

210 ELLICOTT SQUARE, BUFFALO, N.Y.

C.P.R. Hotel at Victoria.

The hotel which the C.P.R. has under construction at Victoria, B.C., has been designed on similar lines to the company's Montreal hotel—the Place Viger. The building will face the west, will have a frontage of 210 ft., with a porte cochere at one end, and a depth of 114 ft. There will be an annex of 116½ ft. by 45 ft. 10 in., in which will be the kitchen. The main building will be five storeys high, and in addition there will be a basement 14 ft. high, and two floors in the high pitched roof. The front elevation shows a main entrance up a flight of stone stairs, to a verandah, which will be about 14 ft. deep to the wall of the central portion of the building. This verandah will be 85 ft. frontage, and over it will be a balcony reached by a door in the second storey. The balcony will be supported on stone arches, surmounted with decorative stonework, and will be in line with the side wings. The whole frontage shows a handsome and harmonious design carefully worked out.

On entering the central door from the verandah, the lounging room will be found to the right, and a drawing-room 30 by 50 ft. to the left. To the rear will be the palm room 68 by 46 ft., the palm garden itself occupying space 26 ft. square under a skylight. To the left will be found a private dining-room 16½ ft. by 20 ft. These take up the centre part of the building. Adjoining the verandah on the right will be the smoking-room 36 by 20 ft., hall leading to side entrance and porte cochere, cloak and parcel room, offices and bedroom, etc., for manager and clerk. On the other side will be the dining-room 38 by 77 ft. To the rear of the centre of the hotel is a large palm garden, and some private rooms, with the kitchens adjoining and in the rear of the dining-room. These are contained in the annex. The first floor is given over to bedrooms, of which there are 25, most of them have bathrooms attached, and a number are so arranged as to be made connecting to suit family parties. The main corridor extending from north to south is 12½ ft. wide, and the north and south corridors are each 8 ft. wide. At each end of the main corridor and at the east end of the south corridor is a balcony fitted with fire ladders. The other floors also are divided up for bedrooms, with bathrooms, lavatories, and all other necessary accommodation for guests.

The basement contains a billiard room, grill room, bar, barber's shop, a number of sample rooms, baggage room, lavatories, as well as a number of bedrooms, etc., for the staff.

The decorations will be of an elaborate character. The main stairway from the ground to the first floor will be of marble with bronze rail, and the main hall will have marble walls and floor. The lounging-room will be in white, the walls being panelled on both sides; the drawing-room in white; the dining-room in Australian red bean; and the smoking room in Flemish oak.

The architect is F. M. Rattenbury, of Victoria, B.C., who also prepared the plans for the reconstruction of the company's hotel in Vancouver. The contractors are A. E. and R. Barrett, Vancouver.

The corporate name of the Standard Construction Co. was changed by supplementary letters patent issued at Ottawa, April 28, to the Pacific Construction Co. (Ltd.).

The Canadian Westinghouse Co. has sold a 500 k.w. enclosed type turbo-generator unit to the C.P.R. to be installed at Fort William, Ont., for supplying power to the grain elevators there. The unit is to operate 3 phase, 600 volt, 7,200 alternations, 3,600 r.p.m.

Pedigreed Live Stock Shipments.

The question of the railway charges for the carriage of pedigree live stock for breeding purposes in Canada has recently been the subject of considerable discussion between the agricultural interests, the railway companies and the Board of Railway Commissioners. Under the rules of the railway companies regarding the shipment of such stock, pedigreed horses, cattle, sheep, and swine in less than carload lots are waybilled at one-half the regular rates upon the production of certificates of registration from a live stock record association, recognized as reliable by the Dominion Department of Agriculture, and the signing of an agreement limiting the valuation to that of ordinary stock. The C.P.R. granted settlers' rates on such stock, not exceeding 10 head in any one case, going to Manitoba and the Northwest Territories, on the same conditions as to production of certificates and the limitation of value. The companies recently stated that this privilege would be withdrawn, and in the course of negotiations between them and the live stock associations and the Railway Commissioners, it came out that the privilege was being abused in various ways, and that the number and variety of the certificate forms issued by the 58 Canadian, 56 British and 36 United States societies, led to confusion and to the carriage at the low rate of animals not properly registered. As the result of the negotiations new regulations have been agreed to which come into effect June 1. These provide for the carrying of pedigree stock as heretofore but require that all certificates shall be uniform in size and appearance, and bear the seal of a central body approved by the Dominion Department of Agriculture. A shipping certificate has to be provided for each shipment, and a record of all movements over the rail at the reduced rate has to be endorsed on the record certificate.

RAILWAY DEVELOPMENT.**Projected Lines, Surveys, Construction, Betterments, Etc.**

Algoma Central and Hudson Bay Ry.—The company applied to the Dominion Parliament this session for an extension of time for the completion of its railway to Hudson Bay. The applicants desired to have five years within which to commence the extension, but the House of Commons has cut this down to two years, with five years as the time within which the line has to be completed.

The Lake Superior Corporation, which now controls the charter, is said to be arranging to have the line completed to a junction with the C.P.R. transcontinental line. At present about 25 miles of grading is required for this purpose, but there is a long stretch, something like 130 miles, on which track has to be laid, and a number of bridges to be built between the present track end and the point at which grading has to be taken up again. (April, pg. 143.)

Anthracite Coal Ry. Co.—J. M. Burns, T. Allan, of Calgary, Alta., are applying at the current session of the Dominion Parliament for an act incorporating a railway from the collieries in tps 18 and 19, ranges 7 and 8, west of the 5th meridian, easterly and southerly to Lethbridge, Alta.

Atlantic, Quebec and Western Ry.—A special meeting of the shareholders has been called to be held in London, Eng., June 12, for the purpose of authorizing an issue of bonds not exceeding \$9,050,000 in connection with the construction of the line, and to authorize the execution of a mortgage of the line, etc., as security for the same. (May, pg. 181.)

Bay of Quinte Ry.—Application is being made at the current session of the Dominion Parliament for an act authorizing the construction of a branch line from Bridgewater for 15 miles northeasterly, to the actinolite mines near Kaladar, Ont. (Mar., pg. 89.)

Bessemer and Barry's Bay Ry.—A general meeting of shareholders was held at Bessemer, Ont., May 12, when an issue of bonds not to exceed \$20,000 a mile, or \$100,000 in all, covering the construction of five miles of the projected line from L'Amable, northerly, was approved, and the issue of a mortgage to secure the same authorized. (May, pg. 181.)

Brandon, Saskatchewan and Hudson's Bay Ry.—The Dominion Parliament is being asked at its current session for an act extending the time for the commencement and completion of the Railway authorized by an act passed in 1903. The railway is projected from Brandon to a point on Hudson Bay near Chesterfield Inlet.

Brockville, Westport and Northern Ry.—Press reports state that the survey party had reached Clyde Falls, 300 miles northwest of Westport, that the construction gang had reached Bolingbroke, and that tracklaying would soon be commenced. A later report states that the survey party had given up work on account of wages not having been paid. (May, pg. 181.)

Bruce Mines and Algoma Ry.—The Ontario Legislature last session passed an act authorizing the construction of a line between Biscotasing and Chapleau stations on the C.P.R. transcontinental line, to Hannah Bay, on Hudson Bay, with branches. The company has power to construct a line from its present terminus at Rock Lake, Ont., to the C.P.R. line. (April, pg. 143.)

Canada Central Ry.—The Ontario Legislature last session passed an act authorizing a change in the provisional directors, the names of F. H. Clergue, W. Morris, G. E. Drummond, W. H. Plummer, J. MacArthur, W. A. Firstbrook, being added, and giving power to construct a railway, in addition to the lines already authorized, from Sudbury to Little Current, across Manitoulin Island, to Fitzwilliam Island; and from Tobermory to Meaford, Ont.; from Sudbury to Lake Temiskaming; from Sudbury to St. Mary's River; from Sudbury to Sutton, Ont., and from Sudbury to Hudson Bay, Ont. (April, pg. 143.) See also Manitoulin and North Shore Ry.

Central Ontario Ry.—Tenders were received to May 27, for the clearing, grubbing and grading of a section of the Whitney extension from Bancroft to Bird's Creek, Ont., 3½ miles. Work is expected to be commenced early in June, and to be pushed through to completion as fast as possible.

Coast Kootenay Ry.—The Railway Committee of the House of Commons has approved of the bill for an extension of the time for the construction of this line for a further period of two years.

Detroit River Bridge.—New York press reports state that the Vanderbilt plans for constructing an international railway tunnel under the Detroit River between Detroit, Mich., and Windsor, Ont., have been completed. Most of the preliminary details have been accomplished and work will be inaugurated soon. The undertaking will cost from \$10,000,000 to \$20,000,000, and will probably require two years to complete. As to the financing of the project it is stated that the Canada Southern Ry. will be the holding Co., and that the matter will be finally settled at the annual meeting of the C. S. Ry. Co., June 7. The plans for an international bridge at Detroit had to be abandoned because, first, of the cost, and second, the demands of the U.S. government in its restrictions upon structures across navigable streams. The tunnel plan was then taken up and the defin-

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ite lines upon which it is to be constructed, outlined. Arrangements are said to have been made or are pending, whereby the G.T.R. will use the tunnel on a rental basis. All other roads in the future will be allowed the use of the tunnel on a like basis. (April, pg. 143.)

Great Northern Ry. of Canada.—We are advised that no decision has been reached in respect to the extent of construction to be done during the current year. (May, pg. 181.)

Halifax and Southwestern Ry.—The Halifax and Yarmouth Ry. from Yarmouth to Barrington, N.S., has passed under control of the H. and S. W. Ry., and the line now under construction from Halifax will connect with it, thus completing the line along the shore for which the people have been agitating for so many years. The route west from Liverpool has not yet been officially announced. T. H. White, Chief Engineer, was in Ottawa early in May, consulting with the Department of Railways in reference to the route. (May, pg. 181.)

Hamilton Terminal Ry.—C. S. Wilcox, A. E. Carpenter, C. E. Doolittle, W. Southam, J. Milne, G. L. Staunton, R. Hobson, of Hamilton, applied at the recent session of the Ontario Legislature for the incorporation of a company with this title. The object was to take over the 25 miles of track now owned and operated by the Hamilton Steel and Iron Co., or to be owned by it or its successors, with power of expropriation. The bill was opposed by the City of Hamilton, and after discussion, was thrown out.

Herminia Mining Co.—The Ontario Legislature has passed an act confirming the incorporation of this company and authorizing it to construct, in connection with its mining properties, a railway from Salter township on Lake Huron, to its copper mines at Sauble River, Ont., with a number of branch lines, not exceeding six miles in length. The provisional directors of the company are J. Hermann, Rev. H. Appleton, J. A. McPhail, L. Sibilsky, O. J. Larson, Calumet, Mich.; P. Primeau, J. S. Wilson, W. H. Green, Marquette, Mich. (April, pg. 141.)

Intercolonial Ry.—Arrangements are reported to be in progress for starting work on the extension to Sydney Mines, N.S. Mr. McLean, of the engineering staff, was in Cape Breton early in May in connection with the work. Work has been resumed on the double-tracking of the line at Rockingham, N.S. (April, pg. 144.)

James Bay Ry.—An arrangement has been made between the Orillia town council and the company by which the main line is to be taken through Orillia, in consideration of a bonus of \$30,000. A by-law giving effect to this agreement was carried on May 15. A number of questions affecting the route were raised in the Ontario Legislature, and a return of all documents relating to the matter was ordered. (May, pg. 185.)

Kaslo and Lardo-Duncan Ry.—Application is being made at the current session of the Dominion Parliament for an act authorizing an extension of the time for the commencement and completion of this line in British Columbia.

Kettle Valley Lines.—The Republic and Kettle River Ry. Co., one of the companies owning lines in British Columbia and Washington, operated as the Kettle Valley Lines, has changed its name to the Spokane and British Columbia Ry., and has increased its capital by \$5,000,000. It is said the line will be extended from Republic to Spokane, Wash.

Lake Superior, Long Lake and Albany River Ry.—The Ontario Legislature passed an act at its recent session extending the time for the commencement of this projected railway from Peninsula Harbor, on Lake

Superior, to Albany River, for two years, and the time for its completion for five years. (April, pg. 145.)

Manitoulin and North Shore Ry.—The application of the company, which is one of the numerous railway projects, the charters for which are owned by the Lake Superior corporation, at the current session of the Dominion Parliament for an extension of time, was contested by residents of Owen Sound, Ont. The company has power to construct a line to connect Owen Sound and Meaford, but as nothing was being done in the way of construction, local interests applied for an act of incorporation as the Owen Sound and Meaford Ry. As a result of the meeting between the Owen Sound deputation and the promoters of the M. and N.S. Ry., an agreement was reached, in consequence of which it is provided in the act that if the M. and N.S. Ry. does not begin construction between Owen Sound and Meaford within six months, and expend \$150,000 on construction, its powers are to lapse. The line is to be completed in 1906. In connection with the power of the company to construct a line from Sudbury to Little Current, a section was inserted directing the commencement of work within a year from July 1 at Little Current, the spending of \$120,000 within a year, and the completion of the work within two years. The Ontario Government has been asked to aid in the construction of this latter piece of line, 75 miles in length. We were advised May 22 that no definite arrangements had been made; that no engineer had been appointed, and that it was not likely anything would be done for some weeks. See also Canada Central Ry., and Owen Sound and Meaford Ry.

Nicola, Kamloops and Similkameen Coal and Ry. Co.—The Railway Commissioners have approved of the route of a projected railway from Spence's Bridge, on the main line of the C.P.R., to Nicola Lake, B.C., 45 miles. (April, pg. 145.)

North Lanark Ry.—Plans of the route of the North Lanark Ry. between Ottawa and Arnprior, Ont., have been filed with the Department of Public Works, Ont.

Northwest Coal and Coke Co.—Application is being made at the current session of the Dominion Parliament for an act extending the time for the construction of the railway authorized by the act of 1903. The line authorized is from Bull Park to a point between Cowley and Livingston, Alta. It is also asked that the name be changed to the Great West Ry. Co. J. B. Crawford is President, and F. Seaman, Secretary of the company. The company has control of 30 square miles of coal lands in Alberta.

Owen Sound and Meaford Ry.—The Railway Committee of the House of Commons has recommended the passing of an act incorporating a company with this title to construct a railway between Owen Sound, and Meaford, Ont., 23 miles. The company may commence its work within two years, and complete the line in five years. It is stated by representatives of Owen Sound who attended before the committee of the House of Commons, that the agreement with the Manitoulin and North Shore Ry. provides for the forfeiture of its charter if the line is not under construction by Jan. 1, 1906, and for the construction of the line by this company. A statement is also made at Owen Sound, that the line will be operated by the G.T.R., and that an arrangement will be made for running rights for the C.P.R. over it. See also Manitoulin and North Shore Ry.

Prince Edward Island Ry.—The seven mile branch from Cardigan to Montague Bridge is being constructed by W. Kitchen. The work is fairly heavy and includes two large bridges, one over Brudenell River, and the other over Vessy's Creek, as well as several large culverts. The contractor has 200 men and 100

teams on the work. It is expected that the branch will be completed in the fall.

The branch from Village Green to Vernon River Bridge is being constructed by M. F. Schurman & Co., Kensington, P.E.I. There are no special engineering or other difficulties in connection with the contract. Work is being pushed and it is expected to have the grading completed and the track laid early in the fall. (April, pg. 145.)

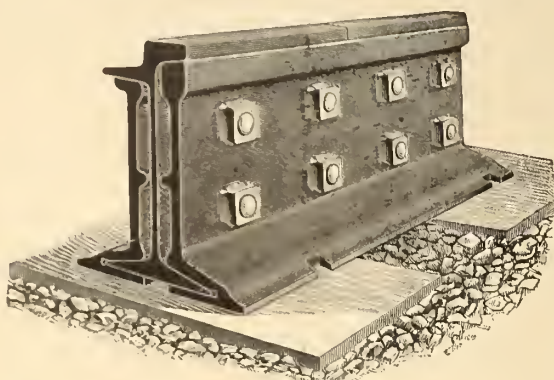
Prince Edward Island Tunnel.—A deputation from Prince Edward Island has been visiting various places in Ontario, Quebec and the Maritime Provinces, advocating the construction of a tunnel between the Island and the mainland. Meetings have been held in the island at which resolutions approving of the construction of a tunnel have been passed. (May, pg. 185.)

Quebec and Lake St. John Ry.—The annual report of the company gives details of a number of improvements commenced on the line during 1904, and which are to be completed during the current year. Among the works are the following:—The construction of a steel trestle bridge on masonry substructure over Rondeau River, at mileage 40; constructing a heavy timber bridge over the Rat River, at Chicoutimi; ballasting and widening the main line; the construction of engine sheds at Lake Edward and Chicoutimi; the erection of a coal chute at Chambord Jet.; the erection and improvement of stations and freight sheds at Roberval, Lake Bouchette, St. Jerome, St. Gedeon, Hebertville, and Chicoutimi; and the purchasing of land for additional shunting yard at the Quebec terminals. Steel rails, 70 lbs., were bought and 40 miles of the main track relaid. The lighter rails taken up will be utilized for the La Tuque branch, now under construction, and on the branch towards Gosford, the grading for which was completed in 1904. The track-laying on this latter branch was expected to be started by the end of May. It was also expected that work on the branch from Roberval to the Government wharf there, one mile in length, will be started early in June. (May, pg. 185.)

Teniskaming and Northern Ontario Ry.—The Government asked the Ontario Legislature for an act to give authority to extend the line to connect with the G.T. Pacific; to construct a number of branches; and for the prosecution of surveys as far as James Bay. Power was also asked for the purpose of generating electricity. In connection with the financing of construction, power was given to raise additional money if required, and a direction was given for the keeping of the accounts of the Commissioners in the Provincial Treasurer's office. The Commissioners, it was proposed, should have power to engage a consulting engineer who may be one of their number, and it is provided that a salary of \$2,500 a year may be paid to him in addition to the honorarium of \$1,000 a year as Commissioner.

Respecting the development of electrical power and its use on the line, D. Murphy, one of the Commissioners, said recently that something might be done in the future, as it had been demonstrated that electricity could be used successfully for long distance runs. It was claimed that heavier loads could be hauled and better time made with an electric motor than by steam. The Commissioners have placed the matter of reporting on the feasibility of adopting electric traction on the portion of the line between North Bay and New Liskeard, Ont., in the hands of electrical engineers to report upon. These engineers are authorized to obtain consultations from the best authorities on electric freight traction. The Commissioners expect to have the report of the engineers, with estimate of the cost, in hand early in June. At the same time the cost of developing water power on the Montreal River will be determined and

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the Commissioners will then probably decide on the question of operating the road by electricity. (April, pg. 145.)

Trans-Canada Ry.—In reference to the press reports that the capital had been secured for the immediate construction of about 400 miles of railway from Roberval, Que., to Hudson Bay, for the Quebec and Lake St. John Ry., we are advised that the proposed construction is to be on the Trans-Canada Ry., which is controlled by very much the same interests as the Q. and L. St. J. Ry. The capital is ready for the construction of the line from Roberval, which is the Lake St. John terminal of the Q. and L. St. J. Ry., to the mouth of Nottaway River, on James Bay, a distance of 380 miles, with a branch from the main line to the mining district of Lake Chibogamo, where there are large deposits of asbestos, copper, magnetic iron and gold. The furnishing of the money is subject to certain terms which are under the consideration of the Government. Surveys for the line have been made by H. O'Sullivan, F.R.G.S., and A. E. Doucet, C.E., and the promoters hope that the work may go on this year. The projected line will run almost exactly through the centre of the province, considerably to the north of the proposed route of the Eastern Division of the Grand Trunk Pacific Ry., and an excellent route has been obtained. The summit between the St. Lawrence and the Hudson Bay watersheds is only 900 ft. higher than Lake St. John, or 1,200 ft. above tide level. There are in the country to be opened up several million acres of spruce forests, and some very large water powers capable of developing from 200,000 to 400,000 h.p.; the soil generally is good, and the climate is stated to be better than that prevailing in the Lower St. Lawrence valley.

Vancouver, Victoria and Eastern Ry.—Application is being made at the current session of the Dominion Parliament for an act to again declare the company to be one under the jurisdiction of the Dominion Parliament, and authorizing the construction of a line from Olivers, on the line of the Victoria Terminal Ry. and Ferry Co.'s line, to Liverpool, and the Fraser River Bridge; the making of connections with lines operating in the State of Washington, and the Vancouver, Westminster and Yukon Ry.; the Victoria Terminal Ry. and Ferry Co., and the New Westminster Southern Ry. An extension of time for the completion of the lines is also being asked.

Several survey parties are reported to be in the field at different points, and J. H. Kennedy, Chief Engineer, was recently reported to be visiting those working in the vicinity of Princeton and Keremcos, B.C. A number of contractors' engineers are also in the district looking over the ground. (April, pg. 145.)

Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:—

Authorizing the C.P.R., as lessees of the Toronto, Grey and Bruce Ry., to construct a siding on Liberty St., Toronto, crossing a G.T.R. siding at Jefferson Ave. (Mar. 18.)

Authorizing the C.P.R. to extend its branch line from sec. 19, tp. 2, range 6, west of the second principal meridian in Assiniboia, for 4.32 miles. (Mar. 28.)

Approving of the C.P.R. form of circus transportation contract. (April 20.)

Approving plans for the location of the Nicola, Kamloops and Similkameen Coal and Ry. Co.'s proposed railway from Spence's Bridge to Nicola Lake, 15 miles. (April 24.)

Authorizing a highway crossing of the C.P.R. in Russell township, Russell county, Ont. (April 26.)

Granting permission to the Guelph and

Goderich Ry. to carry its tracks under the G.T.R. at Blyth, Ont. (April 26.)

Authorizing the Quebec Ry., Light and Power Co. to construct a branch from its main line to the grounds of the Beauport Lunatic Asylum, Quebec. (April 27.)

Granting permission to the Gravenhurst, Ont., corporation to carry water mains under the G.T.R. tracks in that town. (Apr. 28.)

Approving an electric interlocking plant at Garth St., Hamilton, Ont., for the Toronto, Hamilton and Buffalo Ry. (April 29.)

Sanctioning location of a line for the C.P.R. from Yahk, B. C., to the International boundary, 9.19 miles. (April 29.)

Approving plans of a bridge over the Big Sauble River near Thedford, Ont., at mileage 134½ from Toronto, for the G.T.R. (May 1.)

Approving plans for a number of bridges on the Canada Atlantic Ry., on the application of the G.T.R. (May 1.)

Approving plans of a bridge across the Pothole Valley, Alta., for the Alberta Ry. and Irrigation Co. (May 1.)

Approving plans for three trestle bridges for the G.T.R. on the Northern Division. (May 2.)

Approving plans and profiles of an extension of the Calgary and Edmonton Ry. from Strathcona to Edmonton, Alta., for the C.P.R. (May 3.)

Approving plans for the construction of the Quill Lakes branch of the Manitoba and North-Western Ry. for the C.P.R. (May 9.)

Authorizing the G.T.R. to expropriate lands in the village of Notre Dame de Graces, West, Montreal, containing altogether 3.97 acres. (May 10.)

Approving of a proposed deviation of the route of the power transmission line of the Toronto and Niagara Power Co. in the third concession of York tp., York county. (May 12.)

Approving of plans for a branch line in Ingersoll, Ont., for the Tillsonburg, Lake Erie and Pacific Ry. (May 12.)

Authorizing changes in the location at nine points of the line located between Kleinburg and Sudbury, Ont., for the C.P.R. The Board disallowed the application to change the location at four other points. (May 15.)

Approving of plans for the reconstruction of the superstructures of bridges for the G.T.R. in the 12th District. (May 15.)

Directing the repayment to the Schomberg and Aurora Ry. of \$200 deposited as security for the cost of construction of a siding with the G.T.R. at King, Ont. (May 15.)

Authorizing a change in the interlocking of the crossing by the Toronto, Hamilton and Buffalo Ry. of the G.T.R. at Victoria St., Hamilton, Ont. (May 22.)

Approving of plans for a number of bridges to be built by the C.P.R. on the Atlantic, Eastern, Lake Superior and Pacific divisions, and also approving of standard plate girder spans on the line. (May 22.)

The New Ontario Transportation Co. has been incorporated under the Ontario Companies' Act, with a capital of \$40,000 and offices at Fort William, Ont., to carry on a general contracting business. The provisional directors are: J. S. Smith, of Port Arthur, Ont.; E. H. Lane, E. J. Newton, F. DeL. Stover, J. S. Steele, of Fort William.

The Canadian Northern Ry. has filed with the Board of Railway Commissioners tariffs of tolls on its main line from Kamsack to the Elbow, Assa., at 3½ cents a mile; Arizona section—Arizona Jet, to Pleasant Point, Man.; Carberry branch—Brandon Jet, to Carberry, Man.; Clanwilliam branch—Neepawa to Clanwilliam, Man., at 3 cents a mile.

Railway Commission Freight Orders.

The Bay of Quinte Ry. applied to the Board for permission to issue special rate notices giving carload rates on the actual weight of grain left in elevators or country storehouses at the close of the season's business, without previous application. On Feb. 9 the Board issued an order authorizing the issue of special rate notices in certain cases, and upon report of the Chief Traffic Officer, and it appearing to the Board that the practice referred to is one of long standing with the railways, is in the public interest, and that it would be unreasonable to require the shipper to pay the full carload minimum weight for each lot, it is ordered, "That the railway companies subject to the act be, and they are hereby, authorized to apply the carload rates on the actual weight on any less-than-carload lots of grain that may remain in the shippers' storehouses or elevators at the cleaning up of the season's business, preparatory to the reception of the new crops; and that the special rate notices giving effect to the said rates to be filed with the Board, and show for the information of the Board the reason for the issue thereof, and the rates which would have to be charged in the absence of said notices." (May 16.)

Upon the complaint of the Farmers' Association of Canada and the Dominion Cattle Dealers' Association against the G.T.R. and the C.P.R., under the Railway Act, 1903, alleging that discriminatory and excessive rates are charged for the transportation of cattle, in carloads, from stations on companies' lines to Montreal for export. On Mar. 6 the respondent companies were directed to submit for approval a proposition for rates scaling down from 23½c. from stations in Canada, west of Stratford, London and St. Thomas, and 25c. from the territory north of Goderich contiguous to Lake Huron and Georgian Bay, through reasonably graduated groups, to 15c. from Toronto, the rates from the Niagara district not to exceed the rate from Brantford, the present rates in no case to be exceeded, and section 252, subsection 3, of the Railway Act, 1903, to be observed. Application was made by the companies for a re-hearing of their case, which was had at Toronto April 25. Upon hearing Mr. Gregory on behalf of the complainants, and Mr. Loud for the companies, and upon the report and recommendation of the Chief Traffic Officer, and the evidence adduced, the Board has issued the following order May 18: "That in place of the rates at present being charged, the respondent companies substitute rates not exceeding the following, namely:—

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3. Simcoe, Brantford, Harrisburg, Galt, Waterloo and Berlin to Fort Erie, Niagara Falls, Port Dalhousie, Dundas, Guelph Jet, and Guelph incl.	21
4. Hamilton, Campbellville and Rockwood to Oakville, Streetsville and Brantford incl.	20
5. East of Oakville, Streetsville and Brantford to and including Mimico, Lambton and Weston.	18
6. Toronto and Toronto points.	17
7. North of Toronto to and including Maple and Woodbridge.	18
8. North of Maple, Woodbridge, Brantford and Georgetown to and including Newmarket, Cardwell Jet and Caledon East.	20
9. North of Newmarket to and including Barrie.	21
10. North of Caledon East to and including Beeton, north of Cardwell Jet and Inglewood to and including Orangeville.	21

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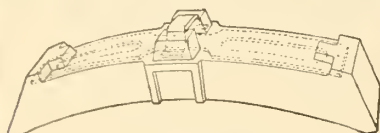
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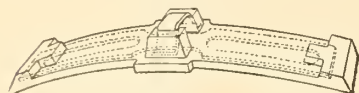


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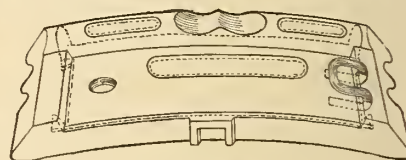
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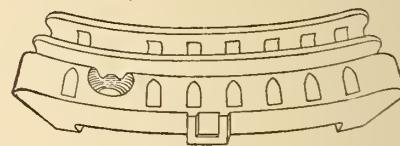
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 14. North of Stratford and Hyde Park to and including Goderich, Harriston and Mount Forest..... 23½ "
 15. Beyond groups 13 and 14 to and including Kincardine, Southampton, Wiarton, Owen Sound, Meaford and Penetanguishene..... 24½ "
 16. East of Toronto to and including Oshawa and Myrtle; also to and including Lindsay (via G.T.R.) and Woodville (via Lindsay); stations between Whitby and Manilla, and C.P.R. north of Burketon to Lindsay..... 17 "
 17. North of Stouffville to and including Mount Albert, north of Blackwater Jct. to and including Lorneville Jct..... 18½ "
 18. West of Lorneville Jct. to Brechin, north of Mount Albert to and including Sutton..... 20 "
 19. West of Brechin to Orillia and thence to Barrie..... 21 "
 20. North of Orillia to and including Midland..... 22 "
 21. North of Lindsay to and including Fenelon Falls and Bobcaygeon..... 19 "
 22. North of Fenelon Falls to and including Kinmount, north of Lorneville Jct. to Cobocok..... 20 "
 23. North of Kinmount to Haliburton..... 21 "
 24. East of Oshawa, Myrtle and Lindsay to and including Cobourg, Peterboro' and Lakefield..... 16 "
 25. East of Cobourg and Peterboro'..... 15 "
- (Present special live stock tariff rates not to be exceeded.)

In connection with the hearing of complaints against the G.T.R. and the C.P.R., by the Farmers' Association of Canada, and the Dominion Cattle Dealers' Association, alleging discriminatory and excessive rates for the transportation of cattle to St. John, and West St. John, N.B., and Portland, Me., the Board ordered the adoption of rates varying from 20 cents per 100 lbs. from points between Kingston and Sharbot Lake to Prescott and Kemptonville, inclusive; to 25 cents per 100 lbs., from west of Stratford, London and St. Thomas to the St. Clair and Detroit Rivers; north of Toronto—Point Edward main line to and including Clinton, Goderich, Listowel and Palmerston; north of Beeton, to, but not including Creemore; north and west of Allandale, to and including Stayner and Phelpsston; beyond Orillia to and including Midland, Gowan and Gravenhurst, also north of Kinmount, and to 26 cents per 100 lbs., beyond points mentioned in the last two groups, and to and including Kincardine, Southampton, Wiarton, Owen Sound, Meaford, Hillsdale, and Penetanguishene.

The Canadian Freight Association applied for the approval of the Board to its supplement no. 4 to Canadian Freight Classification 12. This supplement proposed to make a number of changes in classification no. 12, and of supplements nos. 1, 2 and 3. The Board approved of the changes, with some slight exceptions, by an order dated May 17.

The Railway Commission, during the first 11 months of its existence, held 79 public sittings, 65 being in the west; dealt with 102 applications, and issued 307 orders. The officers of the commission during the same period made 53 inspections.

The rules of procedure to be adopted in connection with arrangements between insolvent railway companies and their creditors, and the winding up of insolvent railway companies prepared by the Judge of the Exchequer Court, under the provisions of the Railway Act, 1903, have been approved by the Committee of the Privy Council.

MAINLY ABOUT PEOPLE.

N. J. Holden, of Montreal, attended the International Railway Congress at Washington, D.C.

T. C. Keefe, C.E., has been granted the degree of Doctor of Laws by McGill University, Montreal.

Sir Thos. G. Shaughnessy, President C.P.R., returned to Montreal May 12 from a trip to Great Britain.

A. H. Taylor, Appraiser of Customs, Ottawa, who died there May 1, was formerly G.T.R. ticket agent there.

R. Kerr, Passenger Traffic Manager C.P.R., attended the recent meeting of the Western Passenger Association at Chicago, Ill.

A. C. Burgess, the former C.P.R. restaurateur, who died recently at Carleton Place, Ont., left an estate valued at \$60,000.

W. G. Warner, one of the engineers engaged on the survey for the proposed Montreal-Georgian Bay Ship Canal, died at Montreal, April 26.

The marriage of Miss Ethel Emmerson, daughter of the Minister of Railways and Canals to F. H. Deacon, of Milton, Ont., will take place June 7.

C. F. Dunbar, who died at Buffalo, N.Y., April 30, was for many years engaged in contracting. He constructed several sections of the G.T.R.

F. E. Kirby, marine architect, Detroit, Mich., where he has been located for the past 30 years, will shortly retire and proposes to reside at New York.

The house in course of erection at Crescentwood, Fort Rouge, Winnipeg, for W. Whyte, Second Vice-President C.P.R., is estimated to cost \$30,000.

J. W. Crosby, Manager Halifax Electric Tramway Co., owing to ill-health has been granted three months' leave of absence and has gone on a trip to Europe.

Thos. S. Armstrong, civil engineer in the construction department of the C.P.R., Winnipeg, Man., was married at Rostrevor, Ont., April 20, to Miss J. Dinsmore.

Col. Anderson, Chief Engineer of the Department of Marine, Ottawa, has been elected a member of the Board of the Institute of Civil Engineers of Great Britain.

W. T. Buckley, a conductor on the Ottawa and New York Ry., Ottawa, is reported to have inherited \$65,000 under the will of an uncle who died in Buffalo, N.Y., recently.

Kivas Tully, for many years engineer to the Toronto Harbor Commission, and consulting architect and engineer to the Ontario Government, died at Toronto, April 24, aged 86.

W. B. Russell, who has resigned his position as Chief Engineer of the Temiskaming and Northern Ontario Ry., will, it is reported, engage in mining pursuits in the Temiskaming country.

C. M. O'Dell, resident engineer Dominion Coal Co., Sydney, N.S., had a leg broken recently through being caught between a moving elevator and the wall at the Windsor Hotel, Montreal.

J. G. Thomson, formerly C.P.R. Traveling Passenger Agent at Chicago, Ill., has been appointed City Passenger and Ticket Agent West Shore Rd. at New York City, succeeding R. H. Pannill.

W. McDonald, who had contracts on the C.P.R. construction between Port Arthur, Ont., and Winnipeg, and during the last 20 years was a general contractor at Duluth, Minn., died there recently.

J. M. Rapelje, at one time a C.P.R. conductor at Winnipeg, Man., has been appointed Superintendent of the Yellowstone divi-

sion of the Northern Pacific Ry., with headquarters at Glendive, Mont.

S. W. Bradley, Superintendent Cornwall Electric Street Ry., was presented with a gold-headed cane by the employees, May 3, on the occasion of his removal from Cornwall, Ont., to Buffalo, N.Y.

Earl Grey, the Governor-General, visited the Angus shops of the C.P.R., Montreal, May 12, and was accompanied by D. McNicoll, Vice-President, and W. R. Baker, Assistant to the Vice-President.

E. J. Chamberlin, General Manager Canada Atlantic Ry., and J. W. Smith, General Assistant, Canada Atlantic Ry., are among the provisional directors of the recently incorporated Colonial Lumber Co., Ottawa.

Geo. H. Gooderham, who died in Toronto May 1, aged 86, was a director of the Toronto and Nipissing Ry., and of the Toronto, Grey and Bruce Ry., prior to their amalgamation by the G.T.R., and the C.P.R. respectively.

D. McNicoll, Vice-President C.P.R., was in his private car Matapedia when a shunting engine backed violently against it at the Central Station, Ottawa, May 8. Mr. McNicoll was thrown from his berth but was uninjured.

Jas. Barry, who died at Niagara Falls, Ont., recently, was a member of the former firm of Ross, Barry and McRae, in carrying out contracts on the Canadian Pacific, the Great Northern of Canada, and the Toronto, Hamilton and Buffalo Railways.

W. H. Kelson, for many years General Storekeeper of the C.P.R., has started business as the W. H. Kelson Co., with offices at 80 St. Francois Xavier St., Montreal. The firm will handle railway, steamship, contractors' and mill supplies.

A. Lichtenhein, of the Galena-Signal Oil Co., ruptured some muscles of the leg about the middle of May, and has been going about on crutches as a result. He has been resting at his home in New York, but hopes to be about again early in June.

C. J. Crowley, at one time resident engineer G.T.R. at Toronto, is reported to have been appointed to take charge of the construction of the tunnels under the Hudson River from Jersey City to Cortlandt St., New York, for the Pennsylvania Rd.

C. M. Hays, Second Vice-President and General Manager G.T.R., was elected Vice-President of the fifth section of the International Railway Congress, recently held at Washington, D.C. He has also been appointed a member of the American section of the permanent body.

P. Gifkins, General Manager Dominion Atlantic Ry., has returned to Kentville, N.S., from London, Eng. He was accompanied by the Vice-President, J. R. Ronald, and the Secretary, R. L. Campbell, who returned to England, after having inspected the line and the company's steamers, etc.

G. A. Knowlton, Divisional Engineer, Grand Trunk Pacific Ry., was presented with a gold-headed cane and entertained at dinner May 10, by residents of North Bay, Ont., where he has resided for the past two years, on the occasion of the removal of his headquarters to Fort William, Ont.

Dr. F. R. Wainwright, third son of W. Wainwright, General Assistant and Comptroller G.T.R., who practised in England, died somewhat suddenly at Studland, Dorset, April 25. W. Wainwright had only recently returned to Montreal from Weston Super Mare, Eng., where Mrs. Wainwright died on Mar. 16.

J. A. Boak, who has been appointed Freight Agent Intercolonial Ry. at Chicago, Ill., was born at Halifax, Mar. 3, 1854, and has been engaged in the merchandise commis-

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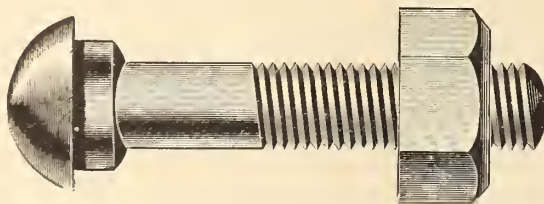
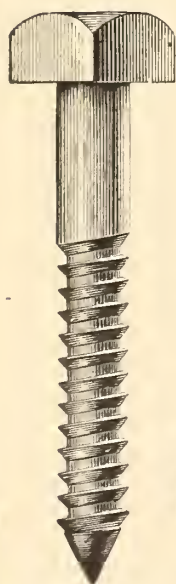
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sion business at Chicago and St. Paul, Minn., since 1880. Since Sept., 1903, he has been soliciting westbound freight for the I.C.R., and was appointed Freight Agent May 1.

The marriage of F. A. Huntress, formerly Manager of the Halifax Electric Tramway, Halifax, N.S., to Miss Gertrude Bent, was announced to take place at Boston, Mass., May 29. He has just been appointed Manager of the Rio Janeiro Light and Power Co., Rio Janeiro, Brazil, and will travel to his new place of residence on his wedding trip.

M. J. Butler, who has resigned his position as Assistant Chief Engineer of the Transcontinental Ry. Commission, will take a holiday during June and go into active service again July 1. Press reports stated that he was to enter the service of the Grand Trunk Pacific Ry., but the management of that company states that there is no truth in the rumor.

Hon. Jas. Sutherland, Minister of Public Works in the Dominion Government, and for some years chairman of the House of Commons' standing committee on railways and canals, died at Woodstock, Ont., May 3. He has been succeeded by Hon. C. Hyman, M.P. for London, Ont., who since 1903 has been chairman of the committee on railways and canals.

C. M. Hays, Second Vice-President and General Manager G.T.R., in addressing the Montreal Young Men's League, May 1, referred generally to transportation problems in Canada, and to the G.T. Pacific Ry. construction matters in particular. The construction of this line would, he stated, require 20,000 workers for its operation and maintenance.

E. J. Hebert, who has been appointed General Agent, Passenger Department, C.P.R. at Montreal, was born there June 18, 1864, and entered railway service Oct., 1879, since which his record has been: 1879 to July, 1882, various positions G.T.R. general offices, Montreal; July, 1882, to May, 1905, in General Passenger Department, C.P.R., Montreal, having been in succession private secretary to D. McNicoll, chief clerk to the Division Passenger Agent at Montreal, and chief clerk of the General Passenger Department.

The following item recently appeared in the Montreal Star: "Mrs. James Hardwell and her son Oswald have gone to take up their residence in Ottawa, where Mr. Oswald has assumed his duties as Traffic Agent of the Railway Commission." The Railway Commission does not have on its staff a Traffic Agent, and Oswald Hardwell has never been in railway service, neither is he attached to the Railway Commission, or any other Government department. His father, Jas. Hardwell, is Chief Traffic Officer of the Commission.

The representatives of Canada at the International Railway Congress, held at Washington May 3 to 10, were: C. Schriber, Deputy Minister of Railways and Canals; C. M. Hays, Second Vice-President and General Manager; E. H. Fitzhugh, Third Vice-President; F. H. McGuigan, Fourth Vice-President; J. H. Hobson, Chief Engineer, G.T.R.; D. McNicoll, Vice-President; I. G. Ogden, Third Vice-President; H. H. Vaughan, Superintendent of Motive Power; W. E. Fowler, Master Car Builder, C.P.R.; J. H. Walsh, General Freight and Passenger Agent, Quebec Central Ry.; F. W. Morse, Vice-President and General Manager G.T. Pacific Ry.

Major H. A. Gray, Engineer of the Department of Public Works, and having charge of the Ontario district, died at Toronto, May 23, from pneumonia contracted while on an inspection tour in the Rainy River District. He came to Canada in 1866, and was engaged successively as location

and assistant engineer on the Intercolonial Ry. He was appointed to the Department of Public Works engineering staff in 1878, and was in charge until 1886 of the Western Ontario district at Stratford; from 1886 to 1889, of the Maritime Provinces district at Halifax, N.S., and from 1889 to his death, of the enlarged Western Ontario District at Toronto.

The Toronto Globe says:—"One of the most responsible positions in Canada just now is that held by A. L. Ogilvie, the General Purchasing Agent for the National Transcontinental Railway Commission. Mr. Ogilvie was formerly Superintendent of the Public Works Department at Ottawa, and was appointed because of his remarkable knowledge of values. He is a strong man of proved integrity, who has after many a tussle earned the respect of contractors and dealers in supplies. He is a Toronto man, and before going to Ottawa, was associated with his brother, a Toronto architect." The Globe might have added that for this responsible position the munificent salary of \$150 a month is paid. It should be at least double that.

The following were among the representatives present at the recent annual meetings of the American Railway Association in New York: W. R. Baker, Assistant to Vice-President C.P.R., Montreal; A. Price, Superintendent of Transportation C.P.R. Western Lines, Winnipeg; G. C. Jones, General Manager; W. E. Mullins, Superintendent of Transportation Central Vermont Ry., St. Albans, Vt.; E. H. Fitzhugh, 3rd Vice-President; H. McGuigan, 4th Vice-President G.T.R., R. H. L'Hommedieu, General Manager Michigan Central Rd. The election of officers, appointment of committees, etc., resulted in the election of representatives of U.S. lines entirely. For the election of three representatives on the Committee on Train Rules, there were nine nominations, and the G.T.R. stood fifth on the list, receiving 17 votes.

J. F. Lee, who died at Detroit, Mich., April 27, was born in London, Eng., Oct. 23, 1851, and was educated at King's College, London, and King's College, Cambridge, Eng. He entered railway service in 1871 with the London and North-Western Ry., serving as correspondence and financial clerk in the general offices, London, until 1873, when he came to Canada, and entered the service of the G.T.R., his record since being: 1873 to 1881, freight, car mileage, audit and passenger department, G.T.R., at Montreal; 1881 to Mar., 1886, general agent, freight and passenger service, Chicago, Rock Island and Pacific Ry.; Mar., 1886, to Aug., 1890, commercial agent, freight and passenger departments C.P.R., at Chicago, Ill.; Aug., 1890, to Mar., 1896, District Freight and Passenger Agent, same road, at Chicago; Mar., 1896, to Jan., 1901, General Agent, passenger department same road, Chicago; Jan., 1901, to Jan., 1904, General Traffic Manager, White Pass and Yukon Route, Skagway, Alaska. During the last year he has been engaged in commercial pursuits in Detroit.

The following is taken from a Scotch contemporary:—"D. B. Hanna is another Scot wha went to Canada lang syne an' noo comes back an' tells us we're a losin' oor time livin' in this barren an' forsaken country. Mr. Hanna hails frae Renfrewshire, an' noo he's ane o' the vice-presidents o' the Canadian Northern Railway, an' president o' the Great Northern Railway. If a man keeps his health an' is steady an' perseverin', says Mr. Hanna, he'll get on in Canada, an' it is a great pity the fairmin' classes here dinna ken better the chances they wad hae oot there. Emigrants should be pourin' frae this country to Canada, but young Scots shouldna leave hame as a mere speculation, unless they hae a turn for fairmin'. Yankees are crossing the border by the thousand, an' this year the

tide o' emigration frae the States will be bigger than ever. Canada is the bread basket o' the warl', an' the mair Scots gang oot the better. An' so on, an' so on, an' so on. The temptation to tak Canada on the word o' the Scots wha come hame on holiday is enough to owercome onybody wha wants to get on in the warl'. They're a' sae terribly enthusiastic."

F. B. Wade, Chairman of the Transcontinental Ry. Commission, died at Ottawa, May 23, aged 53. He had been seriously ill for about a month, an attack of cerebrospinal meningitis supervening on acute gastritis. He was born at Granville, N.S., Sept. 9, 1852, called to the Nova Scotia bar in 1875, and created a Q.C. in 1891. He first became connected with railway operations in 1878 as solicitor of the Nova Scotia, Nictaux and Atlantic Ry., and in 1888 undertook the financing for the completion of the Nova Scotia Central Ry. He was subsequently appointed Receiver-Manager of the line by the courts, and held that position for six years until the Central Ry. Co. was organized to take it over. He was engaged as counsel for Nova Scotia in the Eastern Extension Ry. claims against the Dominion Government; for the South Shore Ry. in the fight with the Narrow Gauge Ry. Co., and for the Yarmouth Steamship Co. in the struggle with the Dominion Atlantic Ry. He was engaged in the promotion of the Halifax and Southwestern Ry., and the Middleton and Victoria Beach Ry. He represented Annapolis in the Dominion Parliament from 1901.

Great Northern Ry., U.S.—C. Wurtele, heretofore General Agent at Vancouver, B.C., has been appointed General Eastern Canadian Agent, with jurisdiction over the freight and passenger agencies of this company in eastern Canada. Offices, 10 King St., E., Toronto. C. W. Graves, heretofore District Freight and Passenger Agent at Toronto, has been appointed District Freight and Passenger Agent with headquarters at 22 John St., Montreal. H. E. Tudor, heretofore General Agent at Montreal, has been appointed Travelling Freight and Passenger Agent, with headquarters at 22 John St., Montreal. Mr. Wurtele is succeeded as General Agent at Vancouver by K. J. Burns, heretofore General Agent at Victoria, B.C., and Mr. Burns is succeeded by E. R. Stephen, heretofore in the Vancouver office.

The Manual of Statistics for 1905, being the 27th annual issue, has just been published by the Manual of Statistics Publishing Co., 25 West Broadway, New York. The volume, which extends to 1,040 pages, conveys in a concise form a large amount of valuable information relative to railways, steam and electric, shipping companies and industrial securities generally, such as will be found useful to investors and others. The information is well up to date, and is conveniently arranged and indexed. A considerable number of Canadian railway and other companies are reviewed, and the information given is generally accurate. In the index, however, there are a number of errors, the old titles of certain lines being used instead of the present ones, and in one case the Alberta Ry. and Coal Co., is indexed as being referred to on page 60, but there is no reference to it at all in the volume. It is, however, impossible to avoid error in books of this kind, notwithstanding the care taken in the work of compilation.

The Association of Transportation and Car Accounting Officers will hold its annual session in Toronto during June. The President is T. E. Brennan, of the Buffalo, Rochester and Pittsburg Rd., Rochester, N.Y., and the Secretary G. P. Conard, 21 Park Place, New York.

THE PINTSCH LIGHT AWARDED THE GRAND PRIZE ST. LOUIS, 1904

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TRANSPORTATION APPOINTMENTS.

Canadian Pacific Ry.—E. J. Hebert, heretofore chief clerk in the General Passenger Agent's office, has been appointed General Agent Passenger Department, Office, Montreal. He will have general supervision of passenger business in the Montreal territory, that is east of Port Arthur, Sault Ste. Marie, Sharbot Lake and Kingston, Ont., to Quebec, Levis, Megantic, Que., and Newport, N.H.

J. Sparks has been appointed Assistant General Baggage Agent Western Lines, with office at Winnipeg. He will have charge of the baggage department of the Western Lines, reporting to the General Baggage Agent at Montreal.

W. F. Fee is reported to have been appointed Resident Engineer at Winnipeg, succeeding W. S. Edge, resigned.

G. H. Smith has been appointed Assistant General Freight Agent, Central Division, Office, Winnipeg.

T. S. Acheson has been appointed Travelling Freight Agent Central Division. Headquarters, Winnipeg.

Travelling Baggage Agent A. Hesketh will have his office at Calgary, Alta., and will report to the Assistant General Baggage Agent at Winnipeg.

W. J. Uren, heretofore Day Chief Train Dispatcher district 4, Central division, Moose Jaw, Assa., has been appointed Chief Train Dispatcher, 2nd district, Central Division 5, Winnipeg. He is succeeded by J. T. Barnes, heretofore Day Chief Train Dispatcher, district 2, Central division.

H. Lejeune, heretofore accountant at the Chateau Frontenac, Quebec, has been appointed Manager of the Mount Stephen House, Field, B.C.

Stewart Gordon has been appointed Manager of the Banff Springs Hotel, succeeding W. L. Matthews.

F. E. Quinn has been appointed District Baggage Agent at Vancouver, B.C. He will have charge of the baggage department, Pacific Division, reporting to the Assistant General Baggage Agent at Winnipeg.

R. K. Scarlett has been appointed City Passenger Agent at Vancouver, B.C., and is attached to the office of W. R. Thomson, City Ticket Agent.

J. Scott has been appointed general foreman at Vancouver, succeeding F. E. Hobbs, transferred to Kamloops, B.C., owing to ill-health.

Grand Trunk Pacific Ry.—G. A. Knowlton, Division Engineer, heretofore at North Bay, Ont., has had his headquarters removed to Fort William, Ont.

In connection with a press report that E. G. Russell, formerly Manager Intercolonial Ry., had been appointed Purchasing Agent G.T. Pacific Ry. at Vancouver, we were advised May 11 that he had not received any appointment in connection with the company.

Grand Trunk Ry.—W. Cuthbert, has been appointed Fuel and Tie Agent under the jurisdiction of the General Assistant and Comptroller.

J. I. Anderson has been appointed soliciting passenger agent at Hamilton, Ont.

R. Ivers has been appointed locomotive foreman at London, Ont., succeeding H. Ashton, resigned.

The following agents have been appointed: Laprairie, Que., J. A. Talbot; Brockville Tkt., Ont., M. O. Dafoe; Lindsay, Ont., R. G. McCraw; Newmarket, Ont., A. Roach (Acting); Alliston, Ont., J. D. McMin; Petersburg, Ont., H. Ober; Camlachie, Ont., F. W. McCordie; Ridgeway, Ont., W. H. Dixon; Dunnville, Ont., T. A. Stone; Shallow Lake, Ont., G. W. McVicar; outside ticket agent Lindsay, Ont., A. M. Paton.

Intercolonial Ry.—H. H. Schaefer, heretofore chief clerk to the General Freight

Agent, has been appointed Division Freight Agent at St. John, N.B., succeeding E. S. Smiley, resigned. His district will comprise all stations from St. John to Aulac, Pointe du Chene and Eel River; and from Loggieville to Fredericton, N.B., inclusive.

J. A. Boak has been appointed Freight Agent at Chicago, and will solicit both east and west bound traffic. Temporary office, 34 Wabash Ave., Chicago, Ill. C. R. Boak has been appointed travelling freight agent for territory outside of Chicago.

Michigan Central Rd.—W. S. Kinnear, heretofore Chief Engineer, has been appointed Assistant General Manager, with office at Detroit, Mich. Press reports state that he will have charge of the construction work of the proposed tunnel under the Detroit River.

Northern Navigation Co.—S. Bickford, formerly agent of the Algoma Steamship Co., Detroit, Mich., is reported to have been appointed Travelling Freight and Passenger Agent for the N.N. Co., with headquarters at Toledo, Ohio.

Pere Marquette Rd. and Cincinnati, Hamilton and Dayton Rd.—E. Zimmermann, President of the latter line, has been elected chairman of the Board of Directors of the Pere Marquette Rd.

T. J. Walsh, heretofore Assistant Secretary to the two companies, has been appointed Secretary, and I. L. Carroll has been appointed Assistant Secretary.

T. Ensle, heretofore Trainmaster Wabash Rd., at St. Thomas, Ont., has been appointed chief clerk to the General Manager of the P. M. Rd., with office at Detroit, Mich.

Quebec Central Ry.—During the absence of F. Grundy, Vice-President and General Manager, in England, the duties of General Manager are being performed by J. H. Walsh, General Freight and Passenger Agent.

Richelieu and Ontario Navigation Co.—C. B. Knott, formerly of the Florida East Coast Hotel Co.'s service, has been appointed Manager of the R. & O. N. Co.'s hotels. N. M. Patterson and F. Gowen will remain as resident managers of the Manoir Richelieu and the Tadousac hotels respectively.

Teniskaming and Northern Ontario Ry.—G. A. McCarthy has been appointed Chief Engineer, succeeding W. B. Russell, resigned. Office, North Bay, Ont.

A. J. McGee has been appointed General Accountant. Office, Toronto.

Wm. Young has been appointed Roadmaster. Office, North Bay, Ont.

A. Allan has been appointed Master Mechanic. Office, North Bay, Ont.

Transcontinental Ry. Commission. M. J. Butler, Assistant Chief Engineer, has resigned from June 1.

Wabash Rd. J. W. Jones, who was Superintendent of the St. Louis Terminals during the exhibition there, has been appointed Trainmaster Buffalo Division, Wabash Rd., succeeding T. Ensle, resigned. Office, St. Thomas, Ont.

The Intercolonial Ry. will place the Ocean Limited, its special express train from Montreal to Halifax, in operation on June 4.

The Canadian Ry. Club met in Montreal May 2, when L. R. Johnson, Assistant Superintendent of Motive Power C.P.R., lectured on Japan, illustrated by limelight views. Members had the privilege of being accompanied by friends, including ladies.

The Westinghouse Co.'s Publishing Department, Pittsburgh, Pa., issued a specially written and illustrated book descriptive of the different works controlled by the various companies, and the appliances turned out, in connection with the International Railway Congress at Washington. It has also issued a circular on Catenary line construction.

Aliens on the Pere Marquette Rd.

Judge Winchester's report which has been received by Sir Wm. Mulock, Minister of Labor, establishes the charge that aliens were brought into Canada by the Pere Marquette Rd. Co. from the U.S. to work on its lines, and that to make room for them Canadians were got rid of. The report covers 56 typewritten foolscap pages, and reviews briefly the main parts of the evidence, in so far as it went, to show how Canadians had been displaced by citizens of the U.S. after the Pere Marquette Rd. Co. had acquired the Lake Erie & Detroit River, the Erie & Huron and London & Port Stanley Railways. The report shows that the following persons have been brought into Canada by the company within the past year, and are at present holding positions in violation of the provisions of the alien labor act: J. S. Pyeatt, Superintendent; E. Cain, Trainmaster; J. R. Gillula, Dispatcher; O. S. Leseur, Assistant Engineer; G. M. Osborne, instrument man; J. W. O'Loughlin, stenographer; J. McManamy, master mechanic; W. C. Groening, general foreman; C. F. Shoemaker, foreman boilermaker; C. H. Shoemaker, boilermaker; W. L. Hutker. All the foregoing reside at present time in St. Thomas, Ont.; E. Britton, District Passenger Agent, at present residing in London, Ont. In connection with these persons the commissioner says: "I find that they came into Canada, being assisted in the way of transportation from the U.S. under contract or agreement, parole or special, expressed or implied, made previous to their importation or agreement to perform labor or service in Canada, and in my opinion they are liable to deportation by the Attorney-General of Canada under the sixth section of the act. The evidence shows conclusively that the positions filled by these men can be as well filled by Canadian citizens and British subjects."

The commissioner also states that the evidence went to show that Canadians and British subjects could be obtained to fill such positions, and that Mr. Pyeatt, the Superintendent, when asked what efforts he had made to obtain Canadian officials, merely mentioned that he had applied to the Michigan Central and the Wabash Railway for officers to fill some of the lower positions, but that W. C. Woollatt, Mr. Pyeatt's predecessor, had stated in his evidence that he would not think of applying to those companies, which were American. The commissioner further states: "In my opinion the policy of the present management of the Pere Marquette Rd. Co. was to fill the higher positions with Americans, and with that in view they appointed Mr. Pyeatt and other officials to take charge of the work at St. Thomas, and E. Britton as the District Passenger Agent at London. That there was a discrimination against Canadians is abundantly shown by the evidence."

Judge Winchester scores Mr. Pyeatt severely for the manner in which some of his testimony was given, and particularly for his treatment of K. R. Cameron, Trainmaster, who was replaced by an American named Cain, after Mr. Pyeatt had been appointed Superintendent. In this connection the commissioner says: "I have no doubt whatever that Mr. Cameron's statement that no complaint was made by Mr. Pyeatt to him, as stated by Mr. Pyeatt, is true, and that Mr. Pyeatt had at or about the time of his own appointment agreed with Mr. Cain to appoint him to Mr. Cameron's position, and carried out such intention before obtaining Mr. Cameron's resignation; and I hold that his actions towards Mr. Cameron, who is an intelligent, conscientious, capable and hard working trainmaster, were unfair and unjustifiable, and

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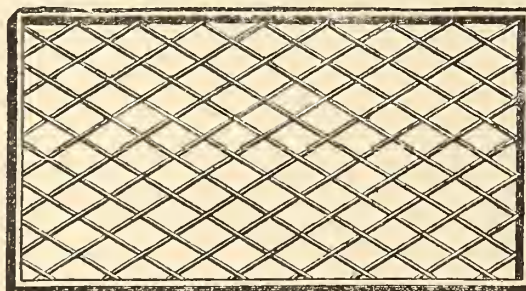
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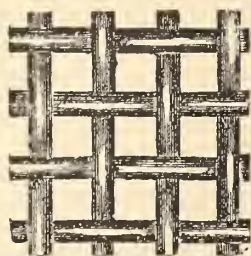
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NIAGARA RIVER BRIDGE CO.

THE annual general meeting of the Niagara River Bridge Company, for the election of directors and other general purposes, will be held on Wednesday, the 7th day of June, 1905, at the hour of eleven o'clock in the forenoon, at the offices of the Canada Southern Railway Company, in the City of St. Thomas.

NICOL KINGSMILL,

10th May, 1905.

Secretary, N.R.B. Co.

NIAGARA GRAND ISLAND BRIDGE CO.

THE annual general meeting of the Niagara Grand Island Bridge Company for the election of directors and other general purposes, will be held on Wednesday, the 7th day of June, 1905, at the hour of eleven o'clock in the forenoon, at the company's head office in the City of St. Thomas.

NICOL KINGSMILL,

10th May, 1905.

Secretary, N.G.I.B. Co.

were for the express purpose of helping an American friend." The commissioner cites other instances which, in his opinion, go to show that the American officials unnecessarily found fault with some of the subordinate officials, no doubt for the purpose of compelling them to resign their positions, so that American friends could be appointed in their place. The report closes with a statement by the commissioner as follows: "I find no effort whatever was made to appoint Canadians for the positions now filled by the Americans."—Ottawa Correspondence Toronto Globe.

An Order-in-Council was issued May 25, directing the deportation of all the officials named, and warrants have been issued under the Alien Labor Act to carry out the order. J. S. Pyeatt and J. McManamy are given 24 days to leave, and the other officials from four to seven days to leave. Prior to the passing of the order a petition from St. Thomas asking that the law be not enforced was sent to the Government. Counsel for the Pere Marquette Rd. also saw the Premier, the Minister of Justice and the Minister of Labor on the subject, but they declined to advise the Government to interfere with the enforcement of the law. Officers of the Pere Marquette Rd. have been at Ottawa with a view of an appeal being made against the order.

Halifax and Southwestern Railway.

At the last session of the Nova Scotia Legislature an act was passed providing for a further loan to this company of \$1,075,000 for the purpose of purchasing the Halifax and Yarmouth Ry., and the Middleton and Victoria Beach Ry. This latter line is under construction from Middleton to Victoria Beach, about 40 miles, the tracklaying and ballasting being in progress. At the time it was acquired by Mackenzie, Mann & Co., some few miles had been graded, but some difficulties had been met with in connection with the location of the route, etc. The act provides for the loan of \$10,000 a mile for the 40 miles of the line at 3½%, the money to be raised by an issue of Government bonds.

The Halifax and Yarmouth Ry. extends from Yarmouth to Barrington Passage, 50 miles, and the act provides for a loan at the rate of \$13,500 a mile at 3½%, the money to be raised by an issue of provincial bonds. The original company chartered to construct the line was the Coast Ry. of Nova Scotia, the railway being projected from Halifax to Yarmouth, about 200 miles, and organization was started in Feb., 1893. The line was opened from Yarmouth to Pubnico, 28 miles, Aug. 18, 1897; to East Pubnico, 30.80 miles, Oct. 18, 1897; and to Barrington Passage, Jan. 15, 1900. This latter section of 20 miles was not continuously operated. A contract was made with the Dominion and Provincial Governments for the construction of a further 90 miles from Barrington Passage to Lockport, but nothing was done. In 1899 the name of the company was changed to the Halifax and Yarmouth Ry. The length of the line is officially given as 50.10 miles; sidings 3.26 miles, laid with 56-lb. steel. The sharpest curve has a radius of 955 ft., and the steepest gradient is 79 ft. to the mile. Its rolling stock on June 30, 1904, consisted of 4 locomotives, 7 first-class cars, 2 baggage and mail cars, 8 cattle and box cars, 28 flat cars, and one snow plow. During the year ended June 30, 1904, its operations showed: Train mileage—passenger trains, 18,500 miles; mixed trains, 29,600 miles; total, 48,100 miles; engine mileage, 50,315 miles. Passengers carried, 51,477; freight carried, 9,540 tons. Passenger receipts, \$26,523.59; freight receipts, \$11,328.33; mail and express, \$1,357.10; other sources, \$675.22.

total earnings, \$39,884.29; working expenses, \$30,354.11; net earnings, \$9,530.13. Capital, issued and paid up, \$500,000; bonds, \$750,000 issued; Dominion subsidy paid, \$160,000; Provincial subsidy paid, \$156,449.33; municipal aid, \$15,338.93; total capital, \$1,621,178.93, on which there had been paid \$831,788.26. Total cost of line and rolling stock, \$973,146.86.

The transfer of the line to the H. and S.W. Ry. was made on May 27.

Toronto Transportation Club.

The adjourned meeting for organization was held at the offices of the Canadian Freight Association, Toronto, May 5, W. B. Bamford in the chair. About 30 transportation men were present.

J. A. Sutherland, chairman of the special committee appointed at the preliminary meeting to draft constitution and by-laws, presented the report, which after discussion was adopted with certain amendments. The following are the principal features:—The object of the club is the mutual improvement of its members and the encouragement of social intercourse among them.



W. B. BAMFORD.

President Toronto Transportation Club.

It shall consist of members and honorary members. Any male between 21 and 60 years of age occupying a position with title with a transportation company, or with a collateral organization owned or controlled by or operated in connection with a transportation company shall, if acceptable to the membership committee, be eligible to membership. The qualifications for honorary membership were left over for future consideration. The officers are to be: President, First and Second Vice Presidents, Treasurer, Secretary, and Executive Committee consisting of officers mentioned and six other members. Officers, etc., are to be elected at the annual meeting by ballot. Regular meetings are to be held quarterly on the first Friday of March, June, September and December, the December meeting to be the annual one. The annual subscription is \$2. Applications for membership must be made to the Secretary on the authorized forms, endorsed by two members; the applications are to be referred to the executive committee, and if found eligible and satisfactory to a majority of the committee the application shall be submitted at the next regular meeting of the club.

The election of officers for the current year resulted in follows: President, W. B. Bamford, Travelling Freight Agent C.P.R.; 1st Vice-President, J. A. Sutherland, contracting freight agent New York Central Rd.; 2nd Vice-President, T. L. Cochrane, Travelling Freight Agent Wabash Rd., St. Thomas, Ont.; Treasurer, R. J. S. Weatherston, city freight agent G.T.R.; Secretary, H. Logan, soliciting freight agent Lehigh Valley Rd.; Executive Committee: D. D'E. Cooper, Canadian Freight Agent Lehigh Valley Rd.; J. W. Hickson, contracting freight agent West Shore Rd.; E. D. Mackenzie, Canadian Freight Agent Pennsylvania Rd.; C. E. Horning, City Passenger and Ticket Agent G.T.R.; W. Phillips, General Eastern Agent Canadian Northern Ry.; C. W. McMullen, city freight agent C.P.R. All the officers reside in Toronto except Mr. Cochrane.

It was unanimously resolved that THE RAILWAY AND SHIPPING WORLD be the official organ of the Club.

C.P.R. Betterments, Construction, Etc.

In connection with the betterments and improvements on the company's lines generally we are advised that during the current year masonry and steel bridges will be substituted for a large number of wooden bridges, and heavier spans will be installed where they are necessary. Six hundred miles of 80 lb. steel will be laid on the main line, and the rails removed will be used for construction purposes in the West; 400 miles of these new rails will be laid on the western portion of the system, and the balance on lines east of Fort William. About \$1,000,000 will be spent in ballasting and fencing. The work of widening embankments will be continued and many ties will be renewed. The new shops at Winnipeg, it is expected, will be in complete operation in a month or two. These shops will be equipped to take care of repairs to locomotives and cars running on lines west of Fort William. Over \$500,000 is to be expended in yard improvements at the various divisional points, and in the extension of sidings in order to facilitate the handling of the heavy and more numerous freight trains which are now being run. Twenty-four new water tanks are to be built. Following its custom in the past, the company, in view of the large increase in tourist traffic, will spend large sums in the extension and improvement of the trails and roads in the vicinity of its mountain hotels. At a number of places where the greatly increasing business renders it necessary, new stations and freight sheds are being erected or extended, and new locomotive houses put up. A large sum will also be expended in the improvement and extension of the elevator facilities at the head of Lake Superior.

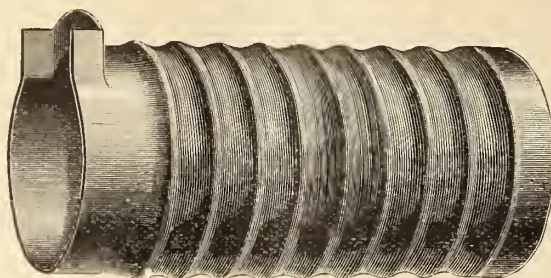
Place Viger Yard Extension.—After having been under discussion for nearly three years the Montreal City Council has passed a resolution allowing the C.P.R. to close a number of streets now running from Notre Dame St. to Commissioner St. The company has purchased, with but two exceptions, all the properties south of Notre Dame St. between Woodyard and Barclay streets, and these it is expected will be acquired at some future date. The city council has approved of plans for cutting off the ends of Barclay, Beaudry, Montcalm and Wolfe streets, and a new road is to be constructed from St. Timothy St. to Commissioner St. The space secured will be laid out in additional yard space and additional freight shed accommodation. The plans for the laying out of the yard have not been completed by the company.

Toronto-Sudbury Branch. A contract has been let to Deeks & Co. for the grading of 128 miles from Parry Sound southerly to

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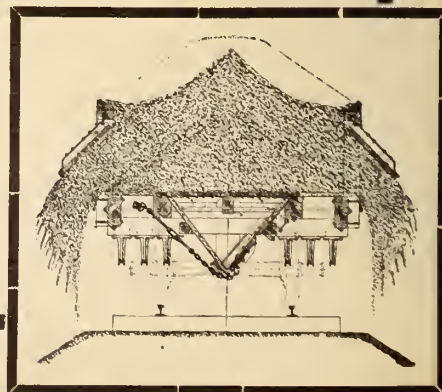
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Bolton, Ont., on the Toronto-Owen Sound line. The line will pass along the west side of the Muskoka Lakes, and will probably touch Lake Muskoka at Bala Falls. The Toronto-Owen Sound line of the C.P.R. will be used as far as Bolton. The grading of the northern section of this branch from Romford to Byng Inlet is about completed.

Victoria Harbor to Sharbot Lake.—It is announced that surveys are to be made for a branch line from Victoria Harbor, Ont., north of Lake Couchiching to the Montreal-Toronto line at Sharbot Lake, and that a grain elevator will be built at Victoria Harbor.

Fort William-Winnipeg Second Track.—It is proposed to construct about 50 miles of double-track during the current year, but the arrangements have not all been completed.

Central Division Betterments.—During the current year the work in connection with the reduction of gradients will be gone on with on the different sections of this division. The number of cubic yards of rock and other material to be moved in the various sections is approximately as follows: Fort William to Ignace, Ont., 57,000 cu. yds.; Ignace to Rat Portage, Ont., 59,000 cu. yds.; Rat Portage, Ont., to Winnipeg, 81,000 cu. yds.; Winnipeg to Brandon, Man., 18,400 cu. yds.; Brandon to Broadview, Assa., 55,000 cu. yds.; Moose Jaw to Swift Current, Assa., 95,000 cu. yds. During the season 381.7 miles of track will be ballasted, the mileage being divided among the districts as follows: Fort William, 30 miles; Ignace, 30 miles; Rat Portage, 13 miles; Brandon, 85.8 miles; Broadview, 50 miles; Moose Jaw, 117.8 miles; Swift Current, 23.1 miles, and 32 miles. In the Moose Jaw section there will also be 54 miles of bank widening, and in the Swift Current section there will also be some bank widening done. New bridge work will also be done as follows: a 200 ft. through steel span at mileage 114, Rat Portage section; a 100 ft. steel girder at mileage 27, and a 150 ft. through lattice girder at mileage 40, Emerson section; a 100 ft. through lattice span on stone abutments at mileage 27, and a bridge of five 150 ft. Howe truss spans on concrete abutments at mileage 47, Portal section. There will also be 24 miles of 80 lb. steel laid on the Broadview section, and 88 miles on the Moose Jaw section, releasing 56 and 60 lb. steel, which will be relaid elsewhere. It is also intended to lay out a new sorting yard at West Fort William to facilitate work in handling cars during the wheat rush, and to relieve congestion in the Fort William yards; and to build an addition to the station at Moose Jaw.

Lake Winnipeg Extension.—An extension of 16 miles will be constructed northerly from Winnipeg Beach, Man., during the current season. The line has not been definitely located, but we were advised May 25, that a survey party was in the field. (May, pg. 205.)

Branches from Saskatoon.—It has been arranged to construct a branch easterly and a branch westerly from Saskatoon, Assa., about 25 miles in each case. We have been advised, however, that it has not been definitely decided to take up the construction of these branches this year.

Reston-Wolseley Branch. A contract has been let to J. D. McArthur, Winnipeg, for the construction of 40 miles of line to connect Reston, Man., on the Arcola branch line, with Wolseley, Assa., on the main Transcontinental line at mileage 295 miles west of Winnipeg. (May, pg. 205.)

Quill Lakes Branch.—The location of this branch of the Manitoba and North-Western Ry. has been approved by the Board of Railway Commissioners. The branch as located starts from the main line in sec. 15, tp. 32, range 11 west of the 2nd meridian

and runs to sec. 8, tp. 33, range 21 west of the 2nd meridian. We are advised that nothing definite has been arranged as to when construction will be started on this branch.

Pheasant Hills Branch.—This branch, which is in operation from Kirkella, Man., to Lipton, Assa., 146.5 miles, is being extended for a further distance of about 55 miles to Strassburg, mileage 202. The contract has been let to Foley Bros., Larson & Co. (Apr., pg. 151.)

Bienfait Branch.—The Railway Commissioners have approved of the plans for the construction of the extension for 4.32 miles in Assiniboia. (May, pg. 205.)

Western Division Improvements.—During the current year 220 miles of track will be ballasted, the mileage on the different sections being: Medicine Hat, 57 miles; Calgary, 44 miles; Laggan, 20 miles; Lethbridge, 30 miles; Cranbrook, 49 miles; Sirdar, 20 miles. The new bridge work on this division includes a 100 ft. deck plate girder at mileage 109.9; a 150 ft. span at mileage 179.1 Calgary section; a 70 ft. half deck plate girder on concrete abutments at mileage 57, and a 100 ft. through truss span to replace wooden structure at mileage 96.3, Laggan section. It is also intended to lay 80 lb. steel for about 95 miles in the Medicine Hat section; 11.7 miles in the Calgary section, and 81.5 miles in the Laggan section, to replace the present 56 and 60 lb. steel. A new station will be built at Medicine Hat.

The Calgary and Edmonton Ry. now terminates at Strathcona, on the south bank of the Saskatchewan River, opposite Edmonton. The company has a charter to extend into Edmonton, and to cross the river by a high level bridge. The Board of Railway Commissioners has approved of the location of the extension. (Jan., pg. 25.)

Wetaskiwin Branch.—The contract for the extension of the branch easterly from Wetaskiwin, Alta., from mileage 25 to mileage 50, has been let to Breckenridge and Lund, Wardner, B.C. The work is to be completed this year.

Lacombe Branch.—A contract for an extension of this branch for 25 miles beyond the present terminus, 25 miles east from Lacombe, Alta., has been let to Foley Bros., Larson & Co. The contract is for grading, the C.P.R. as usual doing its own track-laying. The work is to be completed this season.

Yahk to International Boundary. The sanction of the Board of Railway Commissioners has been given to the plans and profile of the proposed branch from Yahk, at mileage 40.8 west of Cranbrook, B.C., to the International boundary, 9.19 miles. Tenders for the construction of the line have been asked.

Pacific Division Improvements.—The ballasting to be done during the current year will be on 80 miles of track as follows: 24 miles in Mountain section; 31 miles in Shuswap section, and 10 miles in Thompson section, and 15 miles in Cascade section. The bridge construction will include: two 60 ft. spans at mileage 106; two 60 ft. plate girders and one 100 ft. deck lattice girder at mileage 106.8; an 80 ft. deck plate girder at mileage 107.2; two 60 ft. deck plate girders at mileage 107.3; two 30 ft. deck plate girders at mileage 111.4; two 60 ft. deck plate girders at mileage 122.5; and a bridge consisting of six 30 ft., one 30 ft. deck plate girder, two 100 ft. deck lattice girders and four steel towers; all on the Mountain section. Five miles of 80 lb. steel will also be laid. The general work to be undertaken includes the rearrangement of tracks and bend improvements at Revelstoke, North Bend and Vancouver, a new station at Revelstoke, and an hotel at Victoria. A description of this

hotel is given on pg. 241. General repairs and a number of improvements are also to be carried out during the year at the company's mountain hotels, and on the mountain trails in the vicinity of Glacier and Field.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—The company has under construction a line from Thief River Falls westerly for 300 miles, to a junction with the main line at Kenmare, N.D., about 32 miles south of the International boundary at Portal, Assa., where a junction is effected with the C.P.R. It is expected to have the line completed this fall.

Transcontinental Railway Surveys.

The first report of the Transcontinental Railway Commission was presented to Parliament May 22. It confirms the favorable reports which have appeared from time to time as to the easy gradients obtainable and the character and resources of the country, not only between Moncton and Quebec, but westerly towards Winnipeg. It has not yet been ascertained whether a line north or south of Lake Abitibi would be more advantageous. The commissioners dissent from the idea that the Intercolonial Ry. could be used for the eastern section of the line. Were this done, they say, the country would be deprived of a more profitable line for freight, and much valuable country would be unopened. Chairman F. B. Wade summarizes the work already accomplished. He states that the commission has decided, subject to the approval of Parliament, to take over a portion of the survey work on the eastern division, performed by the G.T. Pacific Ry., for which \$289,863 will be paid. Although the G.T. Pacific management is strongly of opinion that it has secured the best possible line through the country east of Winnipeg, the commissioners decided it would not be advisable to take this for granted, and further explorations are accordingly being made. "We have reason," Mr. Wade says, "to hope for very substantial improvement upon the line obtained by the G.T. Pacific Ry., but it is too early yet to attempt to go into details."

So far as could be learned the chief instrument men and other men on parties taken from the G.T.P. were mostly, if not all, Canadians. The preliminary surveys in districts A from Moncton to the boundary between New Brunswick and Quebec, and B from the boundary line between New Brunswick and Quebec to Clear Lake, have been completed, and the parties withdrawn from the field. The commission is now possessed of sufficient information to enable a decision to be arrived at as to whether the line via Fredericton and the St. John River valley or one across the centre of New Brunswick shall be adopted. As to whether the line should run north or south of Lake Abitibi in Ontario it will be some time before the commissioners will have sufficient data to make up their minds on the point. It is proposed to commence location surveys in districts A and B as soon as local conditions permit, and it is expected that surveys for this stretch, from Moncton to Clear Lake, in Quebec, as well as for F from Winnipeg to Lake Nepigon, will be completed, so that tenders may be invited in early autumn. As far as the commissioners are aware all their employees are British subjects, and with very few exceptions Canadian-born. They are confident that there will be a full home supply of both skilled and common labor for all their purposes. They have laid down the rule that promotion must be made on merit alone, and in the matter of merit the judgment of engineers in their department will prevail.

Speaking of Lake Abitibi region and the

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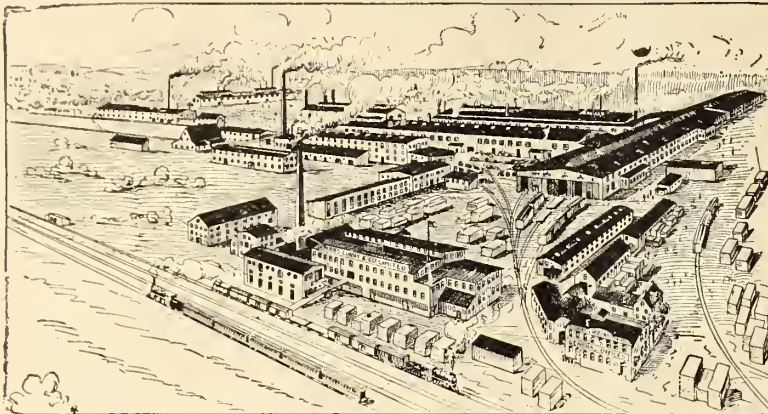
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country extending west, the Chairman says it is now known to be most inviting. The districts between Clear Lake, in Quebec, and Moncton, are most valuable, and should be opened up by railway communication. Arrangements to secure uniform specifications in the eastern and western divisions of the railway have been approved. It has been asserted that there are almost insuperable physical difficulties in the way of constructing a direct line between Moncton and Levis, but the route, as the surveys show, runs all the way through valuable country, part of which is settled and the remainder most desirable for settlement. The opening up of this stretch will be of great advantage to the country. The probable length of this line, if the cross-country route in New Brunswick is adopted, will be shorter than the I.C.R., but how much shorter the commission cannot say until location surveys are completed. Using the same gradients as the I.C.R., a saving of at least 90 miles would be effected, and nearly as much by the river route. The same motive power that would haul 660 tons on the Intercolonial would by the new line haul 1,260 tons going east and 990 tons going west.

Taking the workings of the two railways, and supposing that 10 daily freight trains are run each way, in 313 working days on the I.C.R. there will be 4,131,660 pay tons of freight carried, costing \$3,160,711. On the Transcontinental the same business would be done for \$1,782,518; in other words, the commissioners claim that the saving by means of the Transcontinental, with its lower gradients and curves, would be \$1,237,192, which, capitalized at 4% per year, would be equivalent to over \$30,000,000. Giving the Transcontinental 10 fully loaded trains per day of its own, the saving capitalized would represent \$54,000,000, and if the gradients are increased to the I.C.R. standard of 1%, the distance will be reduced on the Transcontinental to 403 miles from Moncton to Levis. These calculations are all made on the line through the centre of New Brunswick. With the distance reduced to 403 miles there will be a saving of \$448,937 a year, as against the I.C.R., which, capitalized, would represent \$13,723,438.

It has been suggested that the I.C.R. should be utilized for the eastern section of the line, but the commissioners consider, from information obtainable, if it were attempted to lower the gradients of the I.C.R. to the standards secured for the Transcontinental, the distance from Levis to Moncton would be increased by considerably over 100 miles, and a large section of valuable country left unopened. There are two points on the stretch from Levis to Moncton where it may be found desirable to put in pusher grades of 1%. If this is decided on a further shortening of 25 miles can be secured.

"We cannot estimate accurately," says Mr. Wade, "the cost of the proposed line from Moncton to Chaudiere (Levis), but think it will not exceed \$33,000 a mile, and we hope to very considerably reduce this estimate. We have expended up to the end of March \$110,000, and we have liabilities of \$175,761. For the ensuing year we estimate that we will require sums of \$1,328,500 to carry on our work. We hope to be in a position to call for tenders early this autumn. In this case we deem it desirable that \$3,000,000 should be voted on account of possible payments to contractors."

Chief Engineer Lumsden reports that gradients of 4% eastbound and of 6% westbound with maximum curvatures of 4° are obtainable except in a few places, where 6° curves may be needed. In no case will the curvature be in excess of 6°. The river route is surveyed to measure 333 miles, whereas what is known as the back route is 316 miles, a distance of 17 miles in favor of

the latter. Bridges and curvatures on the back line are comparatively few and small in number. From Grand Falls to Quebec they are small in size and number.

District Engineer Doucet found that a first-class line could be had from the Quebec boundary near Edmundston to Quebec bridge, and from the latter westerly via Batiscan, La Tuque and St. Maurice Rivers to Waymantachane, a distance of 432 miles. In no case will the gradients on eastbound traffic exceed 4% and on westbound 6%, with very few cases of the latter. The maximum curvatures of 6° will only be called into requisition in a few places. The average cost of this stretch from Edmundston to Waymantachane will not exceed \$30,000 a mile.

The distance from Moncton to St. Chrysostome is 493½ miles by the I.C.R. The distance between the same points by the Transcontinental is 504 miles. Final location surveys will, however, shorten this latter distance by 18 miles, making the distance from Moncton to St. Chrysostome 486 miles. The estimated shortening from preliminary surveys, using 1% gradients both ways, is 100 miles, which would make the distance 403 miles. The I.C.R. with 1% gradients can haul 22 cars, equal to 660 tons net pay load, whereas the Transcontinental could carry 42 cars eastbound, giving 1,260 tons net pay load, and westbound 33 cars, giving 990 tons net pay load.

Assistant Chief Engineer Butler gives the cost per ton on the respective lines as follows: I.C.R., Moncton to St. Chrysostome, 73c.; Transcontinental Ry., Moncton to St. Chrysostome, 59 7-10c., using a 1% gradient, or 43c. using the minimum gradients obtainable.

Speaking of the region between Clear Lake, Quebec, and the Ontario boundary, Chief Engineer Lumsden says that the country is dotted with numerous lakes, the lands being timbered with spruce, cypress, birch, poplar, small tamarac and cedar. It will be some time before it can be decided whether the line north or south of Lake Abitibi will prove more advantageous. The reports so far indicate that the north line will be found more advantageous as to cost of construction, the nature of country traversed and its suitability for settlement. The country between Winnipeg and Lake Nipigon contains enough timber to supply the whole of this section, and, in addition, the branch to Lake Superior. It consists principally of rocky knolls intersected with numerous lakes. —Ottawa Correspondence Toronto Globe.

Grand Trunk Pacific Ry.

The Ontario Legislature at its recent session passed an act declaring that the corporation of Port William had power to enter into an agreement with the G.T. Pacific Ry., respecting the location of the Lake Superior terminals of the company on Mission Island there, and to provide for the raising of \$300,000 by debentures, to provide for the payment of the bonus agreed upon. The act also declares that the 1,600 acres of the present Indian reserve on Mission Island, acquired for the terminals, and any other contiguous land acquired for the same purposes, shall form part of the town of Port William. The land mentioned will form the headquarters of the company on Lake Superior of the line to be constructed to connect with the Eastern Division from Moncton, N.B., to Winnipeg, to be constructed by the Transcontinental Railway Commissioners. According to a sketch map published by the Port William Board of Trade, the terminals will extend from opposite the Canadian Northern Ry. coal docks on the Kaministiquia River to the lake front at the mouth of Mission River. The area in the bend of the Mission River will be re-

served for elevators, docks, and a turning basin for vessels. The round-house will be near the elevators, while on the lake front there will be the coal dock, and just inside the river the oil tanks. Along the Kaministiquia banks will be located the freight and passenger stations, repair shops, etc., and adjoining will be freight and passenger docks for steamers.

While the Board of Trade publishes this sketch, the company has not prepared what may be regarded as final plans. The construction of the branch northerly from Port William, according to statements of a more or less official character, is to be started in July, and there will be a ceremony of some kind to inaugurate the work. Up to the time of writing no announcement had been made of the letting of any contract for the work.

Plans for the location of the Pacific Coast terminal on Kaiwin Island, B.C., have been approved of by the Minister of Railways and Canals. The terminals will be situated to the south-west of Port Simpson, and will be on part of the Indian reserve. A formal application will be made to the Railway Commission to expropriate the lands required for this point, at the same time that the application to expropriate Mission Island property at Port William will be made.

Canadian Northern Ry. Construction.

The C.N.R. tracklaying gang reached Battleford, Sask., May 16, upon the main line from Winnipeg, which is being pushed through to Edmonton, Alta. The place will be made a divisional headquarters.

In connection with the erection of a new station at Port Arthur, Ont., it is announced that the plans, which are being prepared by Mr. Pratt, the company's architect in Winnipeg, will be ready early in June. The question of the Government yard, which has been in an unsettled state for some years, has been disposed of by the Ontario Government. In exchange for 200 ft. of water frontage for local purposes, the C.N.R. interests obtain 300 ft. on Cumberland St., for use for hotel purposes. The C.P.R. obtains a strip of North Water St., in exchange for running rights over two tracks of railway, and Port Arthur receives the land facing on Arthur and Cumberland streets for municipal buildings.

The Canadian General Electric Co.'s capital has been increased from \$3,000,000 to \$5,000,000, by supplementary letters patent under the Dominion Companies' Act.

The C.P.R. will commence running the Imperial Limited on June 1, making the trip from Montreal to Vancouver, B.C., in 4½ days. This will give a double daily service each way.

The Canadian Westinghouse Co. has prepared plans for doubling the size of its foundry building at the new works at Hamilton, and it is expected will proceed with the work during the summer.

The C.P.R. has organized a school of telegraphy and shorthand at Winnipeg for junior members of its staff, who desire to improve their positions. A similar school has been successfully established at Montreal.

The Canadian General Electric Co. has issued section 3 of its supply catalogue. This section deals with construction material of all kinds. It has also issued bulletin S36, descriptive of its Thompson Type I induction meter.

The B.C. General Contract Co., of which G. H. Webster, formerly Division Engineer C.P.R. at Vancouver, is President and Engineer, has secured a contract in connection with the irrigation canal works being carried out in Alberta by the C.P.R.

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Recent Provincial Legislation.

The sittings of several of the Provincial Legislatures for 1905 having been completed, a list of the Acts passed by them affecting transportation and allied interests is appended:

BRITISH COLUMBIA.

Amending the British Columbia Ry. Act.
Incorporating the Fording Valley Ry. Co.
Respecting the Kootenay, Cariboo and Pacific Ry. Co.
Respecting the Pacific Northern and Omineca Ry.
Amending the Queen Charlotte Islands Ry. Co. Act, 1901.
Respecting the Victoria Terminal Ry. and Ferry Co., and the New Westminster Southern Ry. Co.

NEW BRUNSWICK.

Respecting the Beersville Coal and Ry. Co.
Incorporating the Buctouche and Rexton Ry. Co.
Approving of certain agreements between the C.P.R. and the town of St. Stephen.
Respecting the Caraquet Ry. Co.
Respecting the Gulf Shore Ry. Co.
Amending the Act incorporating the Imperial Dock Co. of St. John.
For the protection of fires in connection with surveys and construction of the National Transcontinental Ry. and other railways through the forest lands in New Brunswick.
To facilitate the opening for settlement of the lands of the New Brunswick Ry. Co.
Authorizing the conveyance of right of way to the St. John Bridge and Ry. Extension Co.
Regarding street railway companies in the city, and city and county of St. John.

NOVA SCOTIA.

Incorporating the Bear River Steamship Co.
Incorporating the British American Coal and Ry. Co. (Ltd.).
Amending the Act incorporating the Cape Breton Coal, Iron, and Ry. Co. (Ltd.).
Amending the Act incorporating the Cape Breton Northern Ry. Co.
Amending the Act incorporating the Cumberland Telephone Co.
Amending the Act incorporating the Davison Tramway Co.
Relating to the Halifax and Southwestern Ry. Co., the Halifax and Yarmouth Ry. and the Middleton and Victoria Beach Ry. Co.
Amending the Act incorporating the Lunenburg Marine Insurance Co.
Respecting the sale of the Midland Ry.
Amending the Act incorporating the Minnie Coal Co.
To enable the town of North Sydney to grant a bonus and exemption from taxation to the North Sydney Marine railway.
Relating to the Nova Scotia Eastern Ry.
Amending the Act incorporating the Nova Scotia Northern Ry.
Relating to the Nova Scotia Steel Co.
Amending the Act incorporating the Port Hood-Richmond Ry.
Amending the Act incorporating Rhodes, Curry & Co. (Ltd.).
Authorizing the granting of aid to the construction of a railway from St. Peters to Louisburg.
Incorporating the Union Telephone Co.

ONTARIO.

Amending act respecting land grant to Algoma Central Ry.
Respecting Bruce Mines & Algoma Ry.
Respecting Canada Central Ry.
Respecting aid given by town of Port William to G.T. Pacific Ry.
Confirming agreement between G.T.R. and city of Brantford.
Respecting Guelph Radial Ry. and confirming by-law of city of Guelph.

To extend time for completion of Hali burton, Whitney & Mattawa Ry.
To incorporate Hamilton, Guelph and North Shore Ry. Co.
Respecting Herminia Mining Co.
Relating to Irondale, Bancroft & Ottawa Ry.
Amending act incorporating Lake Superior, Long Lake & Albany River Ry.
Respecting London, Aylmer & North Shore Electric Ry. Co.
Incorporating London, Chatham & Western Ry. Co.
Respecting London Street Ry.
Incorporating Manitoulin & Iron Range Ry.
Respecting New Ontario Ry.
Incorporating Niagara, Dunnville & Erie Electric Ry. Co.
Respecting Ontario Electric Ry. Co.
Amending act incorporating the Ottawa River Ry. Co.
Incorporating Ontario Telephone Co.
Respecting Pacific & Atlantic Ry. Co.
Respecting the Penetanguishene & Orillia Ry. Co.
Incorporating Perth & Huron Radial Ry. Co.
Respecting St. Catharines, Pelham & Welland Electric Ry. Co.
Incorporating Toronto, Ottawa & French River Ry. Co.
Incorporating Western Central Ry. Co.
Respecting Windsor, Essex & Lake Shore Rapid Ry.
Respecting Windsor & Tecumseh Electric Ry. Co.
Respecting the London Street Ry.
Amending the act incorporating the Lake Superior, Long Lake and Albany River Ry.
Respecting the Herminia Mining Co.

Sir C. Rivers Wilson, President G.T.R., arrived in Montreal from England May 12, and during his stay there, remained at the residence of Sir H. Montague Allan. He started out May 25 from Montreal on an inspection of the Company's lines.

The Canadian Freight Association has issued a circular to shippers in reference to the practice of false classification, false representation of the contents of packages, false report of weight, etc., and calling attention to the penalties prescribed in the Railway Act, 1903, for these offences.

A Winnipeg despatch of May 8 stated that the C.P.R. was contemplating handing over the work of the maintenance of way of its Western lines to private contractors. The company at present employs about 10,000 men on the work of maintenance. We have reason to believe that the report was without foundation.

The Colonial Construction Co. has been incorporated under the Dominion Companies' Act, with a capital of \$2,000,000 and offices at Montreal, to carry on a general contracting business. The provisional directors are: F. S. Maclellan, K.C., J. J. Meagher, F. Robertson, J. C. Macdiarmid, J. T. Mitchell, of Montreal.

The Dominion Parliament at its current session passed an act in respect to the letting of Government contracts. It is provided that tenders shall be asked for all public works, except in cases of pressing emergency in which delay would be injurious to the public interest; in cases where the work can be done more expeditiously and economically by the officers and servants of the department; where the estimated cost does not exceed \$5,000, or where, from the nature of the work it is not advisable to invite tenders; and that the tenders received shall be submitted to the Governor in Council, under the direction of which the contract shall be awarded.

ELECTRIC RAILWAYS.

Electric Ry. Finance, Meetings, Etc.

British Columbia Electric Ry.—Railway earnings for Mar.—Vancouver, \$19,157; Victoria, \$10,019; New Westminster, \$10,509; total \$49,685 against \$34,690 for Mar., 1904. Gross earnings, railway and lighting, \$71,522, against \$66,352 for Mar., 1904. Working expenses, \$41,180; renewal funds, \$6,695; net income, \$23,647, against \$39,951, \$5,988 and \$20,413 respectively, for Mar., 1904. Net earnings for nine months ended Mar. 31, \$254,362, against \$224,371 for same period 1903-04.

At a special general meeting held in London, Eng., April 20, the capital was increased to £1,000,000 by the creation of 150,000 new shares, and a rearrangement of the shares already issued was approved of. The shareholders also consented to the electrification of the Vancouver and Lulu Island Ry., leased from the C.P.R., and to the purchase of most of the shares of the Victoria Gas Co.

Halifax Electric Tramway.—Railway receipts for April, \$10,515.93, against \$11,144.71 for April, 1904.

Kingston, Portsmouth and Cataraqui Electric Ry.—The line has been advertised for sale by the bondholders, by tender. The line comprises nine miles of track, and has recreation park facilities. The car barn, 23 cars, two sweepers, and a motor are also included in the sale.

Montreal Street Ry.—A special meeting of the shareholders was called for May 8, to sanction an issue of debenture bonds, but as certain necessary formalities had not been complied with at that date, the meeting was adjourned to an unnamed date.

Passenger earnings for April, \$200,910.09; total earnings, \$202,946.25, against \$184,905.41 and \$186,472.75 for Mar., 1904. Operating expenses, \$125,350; fixed charges, \$22,454; surplus, \$55,141.57, against \$125,372.36; \$20,836.74 and \$40,263, respectively, for Mar., 1904. Net earnings for seven months ended Mar. 31, \$453,158.37; fixed charges, \$140,905.27; surplus, \$312,253.10, against \$417,446.28; fixed charges, \$110,905.27; surplus, \$291,011.77 for same period 1903-01.

St. John St. Ry. The New Brunswick Legislature at its recent session passed an act providing for the assessment of the property of street railways in St. John. The act also provides for the making of by-laws by the city for enforcing the giving of an efficient service, and the laying of necessary tracks, and for the cleaning of snow in winter by the company.

St. Thomas Street Ry.—The cost of the power for the operation of the line for 1904 was reported to be \$3,120.53.

Toronto Ry.—Car earnings for April, \$201,317.40, against \$183,763.24 for April, 1904.

Projects, Construction and Betterments.

Brantford Street Ry.—An extension to the Mohawk Road is proposed to be undertaken at an early date. (Mar., pg. 109.)

Brantford and Erie Ry.—Application is being made to the Brantford, Ont., city council for a right of entry to the city, and negotiations are in progress with the Brantford Street Ry. The council's railway committee favors the entrance of the line over the Oxford St. and Lorne bridge. The projected line is from Brantford to Port Dover, Ont.

British Columbia Electric Ry.—The tunnel at Coquitlam, 2½ miles, in connection with the company's power development plan, has been practically completed. The work was commenced in July, 1902, and it was estimated that it would take three years to com-

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plete, but the engineers have accomplished their task in three months less than the allotted time. The tunnel which runs out of Lake Coquitlam into a smaller lake called Lake Beautiful, passes under a spur of the Cascade range of mountains, 3,400 ft. high, has a fall of 32 ft., is 12,775 ft. long, with dimensions 9 ft. by 9 ft. From Lake Beautiful to the power-house on Burrard Inlet, the fall is 410 ft. From thence the power is conveyed by cable high over navigable waters by twin steel towers, made in England. The completion of the work gives the company the disposal of 35,000 h.p. (April, pg. 161.)

Chatham, Wallaceburg and Lake Erie Ry.—It is announced that an early start will be made with construction, and it is hoped to have it completed from Chatham to Wallaceburg, Ont., by the fall. Tenders are under consideration for the supply of 60,000 ties, and 1,000 cedar poles for the line. A site has been purchased on King St., Chatham, for a power-house and office buildings. W. N. Warburton is General Manager.

Fort William, Loch Lomond and Mount McKay Incline Ry. and Tourist Resort Co.—A number of Fort William residents and others applied at the recent session of the Ontario Legislature for the incorporation of a company with this title, with power among other things to construct an electric railway from West Fort William to Mount McKay, and to Loch Lomond, and along the Kaministiquia River to Squaw Bay on Lake Superior.

The Grand Valley Ry. offers to agree not to run its cars in Galt on Sundays if given a franchise in the city. The council is considering the proposal.

Guelph Radial Ry.—The Ontario Legislature passed an act at its recent session confirming a by-law of the city of Guelph providing for the issue of \$30,000 of debentures for the purpose of extending the line. The company also got power to issue \$48,000 of bonds, for which the city of Guelph guarantees the interest, to retire an existing issue; and an extension of time for the construction of the line. (Mar., pg. 110.)

Hamilton, Ancaster and Brantford Ry.—The negotiations in connection with the arranging of the route of this line and its entrance into Hamilton and Brantford have been continuously in progress, and on May 9, the entrance into Brantford was arranged.

The Ontario Legislature had before it at its recent session an application for an act confirming the election of A. Kennedy, C. D. Haines, S. Strathy, L. Harris and E. Kenrick, as directors; fixing the capital stock at \$500,000 and authorizing the issue of bonds for the construction of the line. (May, pg. 205.)

Hamilton, Grimsby and Beamsville Ry.—The Hamilton, Ont., city council is considering a proposal to connect this line with the city lines at James and Main streets, and Sanford avenue and Main St.

Hamilton Radial Ry.—The steel superstructures for the bridges on the extension from Burlington to Oakville, Ont., have been completed, and will be placed in position as speedily as possible. Application is being made to the Wentworth county council for a franchise for a line from the corner of Sherman Ave. and King St. w., to Bartonville, and also to run cars via King and Main streets. (April, pg. 161.)

London, Chatham and Western Ry.—J. N. Lewis, M. M. Trenaman, Detroit, Mich., W. and H. McSween, A. T. Boles, Leamington, applied at the recent session of the Ontario Legislature for an act incorporating a company with this title to construct a railway to be operated by electricity or any other motive power except steam, from London to Windsor, passing through Lobo, Caradoc,

Ekfried, Glencoe, Mosa, Bothwell, Thamesville, Chatham, Raleigh, the Tilburys, Rochester, Maidstone, and Sandwich. The capital is fixed at \$2,000,000 and the offices are to be at Chatham. In passing through committee the company was denied the privilege of constructing branches, and of obtaining special rights in water powers; and was directed to obtain franchises from municipalities before power could be sold, or lighting plants installed. The bonding power was fixed at \$25,000 a mile, instead of \$30,000 as asked.

London Street Ry.—The Ontario Legislature at its recent session passed an act confirming certain agreements made between the company and the city council in respect to the construction of additional lines, and double track in the city. (Mar., pg. 111.)

Montreal Terminal Ry.—The company has completed its line along Forsythe St. to the eastern limits of Maisonneuve, about 2½ miles, and expects to have it in operation early in June. This will give a line from the corner of Craig St. and City Hall Ave., Montreal, to the eastern limits of Maisonneuve, about seven miles.

Montreal Park and Island Ry.—The application for a revival of the charter of this company, which is owned by the Montreal Street Ry. Co., has been denied by the Railway Committee of the House of Commons. The company sought power to construct additional lines on Montreal Island, and the application was opposed by the Montreal Terminal Ry., which is already operating in the district sought to be served, on the ground that it would parallel its line. The bill was supported by a number of members of the House from the districts through which the proposed line would run. (Mar., pg. 111.)

Ontario Electric Ry.—The Ontario Legislature was asked at its recent session to pass an act granting a further extension of time for the commencement of this line, which is projected from Toronto to Ottawa, via Cornwall.

Perth and Huron Radial Ry.—T. Ballantyne, J. Brown, J. Orr, W. Preston, W. J. Mooney, D. M. Ferguson, E. T. Dufton, of Stratford, Ont., were incorporated last session of the Ontario Legislature as a company with this title to construct an electric railway from Stratford to Grand Bend, on Lake Huron; Stratford to New Hamburg; and Stratford to Tavistock.

Quebec Ry., Light and Power Co.—Permission has been given by the Board of Railway Commissioners for the construction of a branch line from the company's main line into the grounds of the Beauport Lunatic Asylum, Quebec.

Toronto and York Radial Ry.—Application was made at the recent session of the Ontario Legislature for an act authorizing the company to construct the various lines which the Toronto and Scarboro' Electric Ry., Light and Power Co., the Toronto and Mimico Ry. and the Metropolitan Ry. were authorized to construct under their several acts; to construct a line to Bowmanville and Cobourg, Ont., in extension of the Scarboro' line. The company also asked to have it declared that it possessed the same powers as the Metropolitan Ry. The various lines were to be completed in five years. The confirmation of an agreement with the township council of Scarboro' granting a perpetual franchise in the township was also asked. The application met with some opposition from municipal authorities on the ground that the act would confer a perpetual franchise on the company, and that the acts relating to the Metropolitan Ry., which it was sought to have apply to the other lines amalgamated under the title of the T. and Y. R. Ry., gave power to operate the line by steam or electricity. The mat-

ter was specially brought before the notice of the Government, and a decision was reached that the bill should not be passed. W. H. Moore, General Manager, offered to withdraw the clauses relating to the franchise, and to ask only for confirmation of the by-law, as in connection with that contracts had been entered into and work was in progress. The same stand was taken by the Government upon this matter, and the Railway Committee decided, by a vote of 9 to 8, not to concur in the preamble.

The question of the entrance of the company's lines into the city has been discussed with representatives of the Toronto city council, and the York county council, but no decision was reached. The matter also was brought up in the Legislature, when T. H. Lennox, M.L.A. for North York, introduced a bill for the purpose of forcing an agreement between the radial railways and the city. The bill, however, was withdrawn on the Premier stating that the matter would be considered by the Government and dealt with in connection with the appointment of the Electrical Railway Commission.

Application was made at the recent session of the Ontario Legislature for an act confirming an agreement of the Toronto and Mimico Ry. with the township council of Trafalgar, for a franchise for an electric railway through the township.

Statements made at different points along the route of the proposed extension from Long Branch to Oakville, are to the effect that the options taken on the land for the right-of-way have lapsed, and that there will be no construction this year. It is also stated that the gauge is to be altered to standard, 4 ft. 8½ in., and that until the existing line is so altered no further construction will be undertaken. (Mar., pg. 111.)

Toronto and Hamilton Ry. Application is being made at the current session of the Dominion Parliament to sanction an agreement, or authorizing the making of an agreement with the Toronto and Niagara Power Co. for the use of the right-of-way of the Power Co. for the purposes of its railway, and for other purposes.

The starting point of this line in Toronto will be near the intersection of Davenport Road and the C.P.R. track from Leaside Jet. to Toronto Junction, the word "Toronto" having been inserted instead of "Leaside Jet," in our last issue, by an oversight.

We are advised that owing to the incompleteness of legislation respecting the company's affairs, the receipt of tenders, which was fixed for May 1, has been postponed until further notice. As many intending tenderers as possible were notified in time, but several tenders were received and the deposit cheques have been returned. (May, pg. 207.)

Windsor and Tecumseh Electric Ry. Application was made at the recent session of the Ontario Legislature for an act authorizing the company to extend its lines through the townships of the Tilburys, Maidstone, Rochester, Dover, Raleigh and the city of Chatham, and for other purposes. W. F. Brown, Walkerville, Ont., is General Manager.

Winnipeg, Selkirk and Lake Winnipeg Ry.—An announcement has been made that this line, now operated by steam, will be electrified during the current year, and that several short branch lines will be constructed. (Mar., pg. 111.)

Winnipeg Street Ry.—The extension of the line from Maryland bridge to the new suburban park, on the south side of the Assiniboine River, will be about two miles long and will be single track. The extension will be commenced at an early date and it is intended to have it completed this season. The Logan Avenue extension will be one mile of double track line and will also be

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completed this season. The extension in Kildonan township will consist of two miles of double track, which will be laid on the east side of the Red River, along the Bird's Hill road. (May, pg. 207.)

Electric Railway Notes.

H. E. Smith, heretofore Accountant, has been appointed Comptroller of the Montreal Street Ry.

The London Street Ry. Co.'s private car Victoria has been converted into a regular passenger car.

The Canadian Westinghouse Co. has sold to the Edmonton, Alberta, Street Railway a 200 k.w. railway generator and a number of double equipments of railway motors.

The proposal to allow the Winnipeg Street Ry. to operate its cars on Sundays has been defeated by a vote of the citizens, there being 2,370 votes against the by-law and 2,166 in its favor.

Of the 14 new double truck motor cars which the Winnipeg Street Ry. is adding to its equipment two will be built at the company's own shops in Winnipeg, and 12 are being built in Ontario.

W. N. Warburton, formerly General Freight Agent Niagara, St. Catharines and Toronto Railway and Navigation Co., has been appointed General Manager Chatham,

and it appears that the T.R. Co. has returned its mileage one year as miles of single track, and in the next each mile of double track as one mile. Upon enquiry we have been informed that the mileage reported to the directors at the end of 1904 was 105.0832 miles.

The B. C. Electric Ry. Co. has created the position of Managing Director, who will have his headquarters in London, Eng., and will spend some months in British Columbia each year. J. C. Buntzen, General Manager, Vancouver, has been appointed to this position and is now rearranging the staff and putting the business in order prior to taking up his residence in London. R. H. Sperling, heretofore General Superintendent, has been appointed General Manager in British Columbia, and F. Hoffmeister, heretofore superintendent in charge of the installation of the electric power plant for the Winnipeg Electric Power Co., has been appointed Electrical Superintendent.

The Montreal Street Ry. has placed a new type of car in operation on its lines. It is of the semi-convertible type, with seats partly cross and partly side. In place of the ordinary 5 ft. rear platform, there is a 7 ft. platform, divided into two by a brass railing, one portion being used for passengers entering the car and the other for passengers alighting. There are two doors at the rear of the car so that passengers entering and alighting do not come in contact.

Council, upon the report of the Engineer of the Public Works Department "as suitable for use by the company, having regard to the efficiency of such fender, brake, or other life saving appliances, for life saving purposes, and to the location of the company's line, and the speed at which the company's cars may be run," shall be adopted and used within the time fixed in the order. A penalty of \$10 a day is fixed for the operation of a motor car without the appliances ordered, "except in case of accident or unavoidable necessity." In the event of the company operating on a private right of way, it shall have the right of crossing highways on maintaining such safeguards as may be ordered by the Ontario Railway Committee.

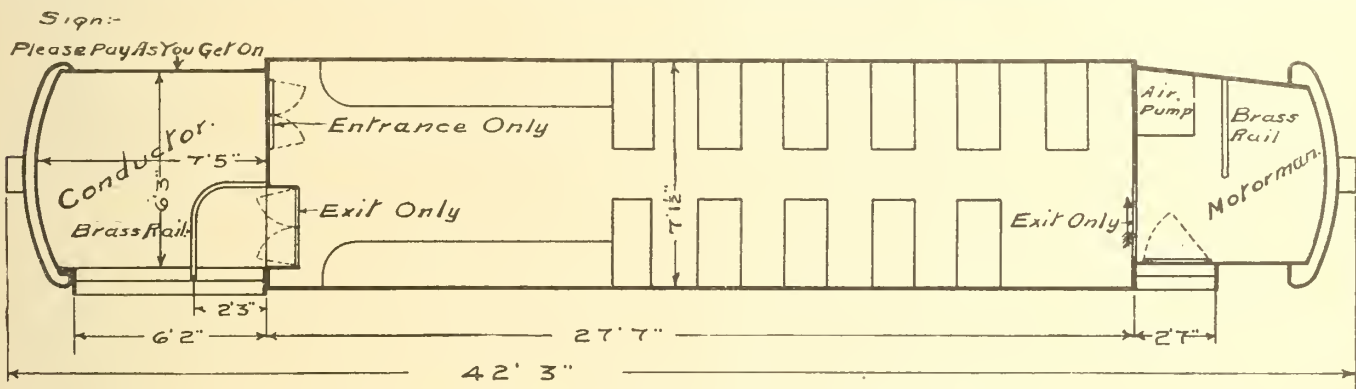
Grain Elevator Notes.

The Northern Elevator Co. proposes to erect a flour mill and elevator in connection at Winnipeg, Man., to cost \$250,000.

The Montreal Grain Elevating Co.'s directors for the current year are: A. T. Paterson, A. Macdougall, R. Reford, T. A. Crane and B. McLellan.

The Kaleida Farmers' Elevator Co. has been incorporated under the Manitoba Companies' Act, with a capital of \$5,000, to construct an elevator at Kaleida, Man.

A number of suits have been brought against the Crown Elevator Co. for wages and material



THE MONTREAL STREET RY. CO.'S NEW STANDARD CAR—FLOOR PLAN.

Wallaceburg and Lake Erie Ry. Offices, Chatham, Ont.

Sterling-Meaker Co., Newark, N.J., has recently received an order from the Brooklyn Heights Rd. Co., Brooklyn, N.Y., for 400 Sterling fenders or life guards, and has recently shipped 200 of the same to Manila, P.I., for a road which is being built there.

The Windsor and Tecumseh Electric Ry., Walkerville, Ont., has purchased from the Robb Engineering Co., Ltd., Amherst, N.S., a 450 h.p. Robb-Armstrong corliss engine and two 200 h.p. Robb-Munford boilers, also for a large steel smoke stack, condenser and all piping complete.

The Montreal St. Ry. Co. recently announced that conductors and motormen who had been five consecutive years in service would have their pay advanced to 19c. an hour, and that summer and winter uniforms would be provided free for conductors and motormen who had been three consecutive years in the company's service. The increase went into effect May 1. The Ottawa Electric Ry. Co. has also announced an increase of wages.

The mileage of the Toronto Ry. as reported to the Department of Railways and Canals for 1901 was 46.75 miles; for 1903 it was reported as 96.74 miles; for 1902, the figures given were 49.35 miles, and for 1901 89.10 miles. The figures which the department asks for are of the miles of track laid,

The fares will be collected as the passenger steps on the platform, thereby relieving the conductor of the necessity of entering a crowded car to collect fares. By this means he will be enabled to attend to the other duties which he is called upon to perform, but now has very little time to attend to. The front platform is made more spacious than ordinarily, and the motorman, and all the apparatus under his charge are railed off from the front of the car, the door in which is to be used only as an exit. A floor plan of this car is given on this page. It is the invention of W. G. Ross, Managing Director, and D. McDonald, Superintendent of the company and has been patented in Canada, the United States and European countries.

The Ontario Government purposes to appoint a special commission to deal with the whole question of electric railways in the province. No announcement had been made at the time of writing, as to the number of the commission, the details of the duties it would be called upon to perform or when it would be appointed. The government has also had under consideration the fender question, and the Legislature has approved of an act amending the present acts dealing with the subject. The new provisions set forth that such fender, brake or other life saving appliances as shall be recommended by the Lieut. Governor in-

supplied for the construction of the company's elevator at St. Boniface, Man.

The Point Edward, Ont., Elevator Co. has given notice that the terms of storage have been reduced from 30 to 10 days, and on sample lots one-eighth extra will be charged on account of special bins.

The Aberdeen Elevator Co. has been incorporated under the Ontario Companies' Act, with a capital of \$50,000 and offices at Hamilton, Ont., for the purpose of carrying on a general grain elevating and storage business. The provisional directors are: A. Fowler, New York; E. R. Bacon, Chicago, Ill.; J. J. Scott, J. D. Gansby, J. H. Publow, Hamilton, Ont.

It was recently announced from Montreal that a company was in process of formation for the purpose of constructing a large number of elevators in Manitoba and the Northwest, and two flour mills in Great Britain. C. R. Hosmer, who is reported to be interested in the proposal, has been in England, and it is said that he was engaged in some negotiations in connection with financing the company.

The C.P.R. elevator B at Fort William, Ont., has been completed, and in connection with it a new yard is being laid out so that sufficient cars can be accommodated to enable the house to be worked to its full capacity. The elevator can handle 38 cars of wheat an hour, and may be run for the full 24 hours at

that rate if necessary; and can load wheat into vessels at the rate of 100,000 bush. an hour.

The C.P.R. has ordered a steam turbine generator for the power plant at its Port William, Ont., elevators. This engine will be in addition to the two now installed there and will bring the total available power up to approximately 2,100 electrical h.p., all of which will be utilized in the C.P.R. grain handling plant. The new machine will be what is known as a Westinghouse-Parsons turbo-generator and is to be manufactured by the Canadian West-

inghouse Co., Hamilton, Ont. The mechanism of this engine is similar to the new turbine steamers, but instead of the shaft driving a propeller, it is directly connected to an electrical generator, and the electrical energy generated is wired to the different buildings where it may be needed. In power it is rated at 500 kilowatts or roughly 600 electrical horsepower, and as it will be running parallel with the two compound engines now in position, will serve as a test of the relative efficiency of the turbine and the oscillating engine.—American Elevator.

Port Colborne Harbor Works.

The Dominion Government is carrying out an extensive system of harbor works at Port Colborne, Ont., situated at the southern or Lake Erie end of the Welland Canal. This canal is navigable for vessels drawing 13½ ft. and therefore deep draught Upper Lake vessels must unload there, or should their other dimensions suit, lighten sufficiently to enable them to pass through. The work at Port Colborne was taken in hand in 1899, with the object of making the place a tran-

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The General Railway Signal Company has acquired the American assets and properties of the Taylor Signal Company, of Buffalo, N. Y., and of the Pneumatic Signal Company, of Rochester, N. Y., and is prepared to furnish and install approved forms of mechanical, pneumatic, electro-pneumatic and electric interlocking devices, track circuit appliances, motor signals, railway gates, etc.

shipping point of large dimensions, and a possible rival of Buffalo, N.Y. The works comprise new docks, excavation of channels, and two large breakwaters to the east and west of the port. These breakwaters, of which one, 5,000 ft. long, is totally finished, while the other, 2,400 ft. long, is half completed, are under the supervision of the Department of Public Works. The remainder of the works are being carried out by the Department of Railways and Canals.

This latter work may be divided into two sections, outer harbor and inner or canal basin. The former calls for the construction of two docks, 200 by 700 ft., and the deepening of an area to 22 ft. to allow approach by the largest lake carriers. The excavation is entirely of solid rock, over 300,000 cubic yards in all, averaging a cut of 3 to 4 ft. From lighthouse to canal basin entrance, a depth of 18 ft. is required, principally sand and soft material. The canal basin itself is dredged to afford 16 ft. of water. This plan, however, will no doubt be changed to afford a depth of 22 ft. over entire area of both inside and outside harbor. In addition the sides of the canal basin have been dug out and concrete docks built.

The design of the inside and outside harbor docks is similar, save for the width of crib. They are essentially submerged cribwork filled with stone and surmounted by concrete blocks carrying a mass concrete wall, the whole covered for width of crib by an 18 in. slab of concrete. The timber used in the cribwork was about 35,000,000 ft., mainly 12 by 12 in. The filling of each crib had to be completed at one operation, so that 2,000 cubic yards of material had to be provided to be dumped in, as soon as the crib had been placed in position. The concrete blocks are each 4 by 4½ by 7 ft. They are made with a joggle, so that the mass concrete filling forms a strong joint between each block, and between top of block and wall above, and prevents any lateral displacement of blocks relative to the wall which might be caused by impact of the heavy seas or vessels. Up to the end of 1904 40,000 barrels of cement had been used for concrete. The principal item of this work consisted of the drilling, blasting and dredging of 300,000 cubic yards of very hard flinty limestone over a great area. The cut varied from 6 ins. to 6 ft., but to get down to grade it was necessary to drill and blast at 2 to 3 ft. below grade in order to avoid pinnacles and ledges being left.

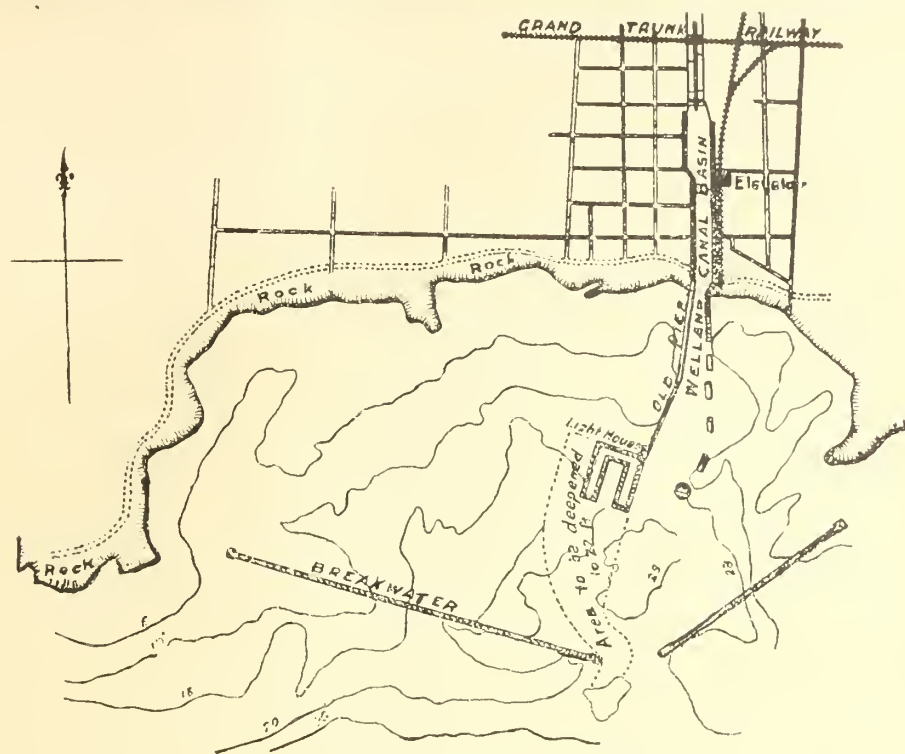
These various works are now almost completed, and arrangements are being made for the putting in of the foundations of a 2,000,000 bush. elevator.

The foregoing is extracted from a paper read recently before the general section of the Canadian Society of Civil Engineers by J. M. Hogan.

SHIPPING MATTERS.

Reciprocal Inspection of Steamships.

The following order has been issued by the Secretary of Commerce and Labor for the United States:—"The Department of Commerce and Labor of the U.S. has been officially notified that the Government of Canada will recognize as valid the steamboat inspection certificates issued by the authorities of the U.S. to American steamers, and, in the case of vessels of the U.S. having unexpired certificates of inspection issued by officers of the U.S. Government, will dispense with any further inspection as regards hull, boilers, machinery, and equipments, including life-saving appliances, except such as is necessary to satisfy the inspectors that the condition of the vessel, her boilers and life-saving equipments are as stated in the said



PORT COLBORNE HARBOR IMPROVEMENTS.

current U.S. certificate of inspection. It is therefore ordered that hereafter, and until otherwise directed, the merchant passenger steamers of Canada, sailing from ports in the U.S. and holding unexpired certificates of inspection, issued by the duly constituted officers of Canada, shall be subject to no other inspection than necessary to satisfy the local inspectors, that the condition of the vessel, her boilers and life-saving equipments are as stated in the said current Canadian certificate of inspection. The masters, owners or agents of Canadian merchant passenger steamers, other than steamers holding certificates of inspection issued by the authorities of the U.S., shall, immediately upon arrival at ports in the U.S., file in the office of the local inspectors of steamboats having jurisdiction in such ports a copy of their current Canadian certificates of inspection. Masters, owners or agents of the Canadian merchant passenger steamers holding an unexpired U.S. certificate of inspection, shall also furnish the local inspectors with a copy of their current Canadian certificates of inspection upon arrival at a U.S. port on their last voyage preceding the date of expiration of the current U.S. certificate held by such steamer, and it shall thereafter be examined and certificated in the manner provided herein." The regulations for inspection follow.

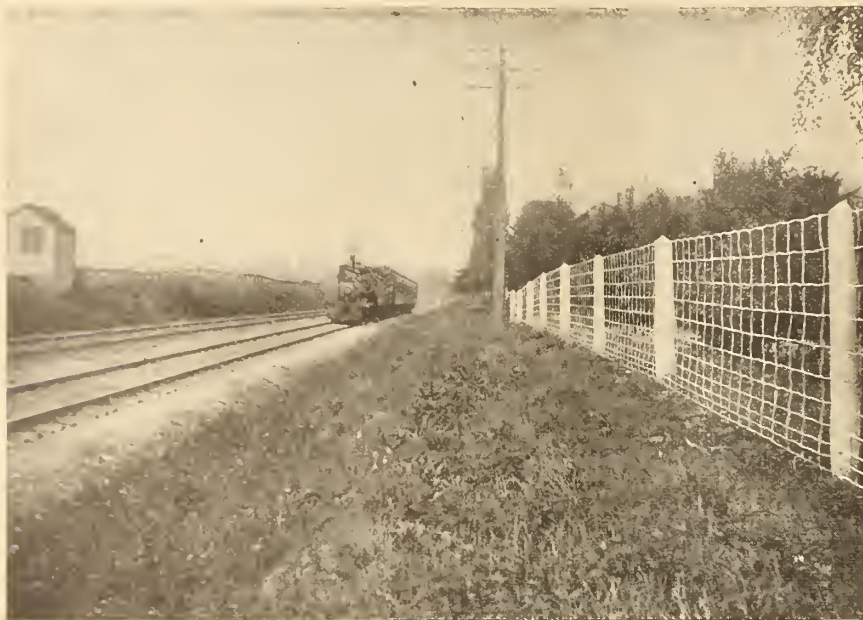
The Deputy Minister of Marine has issued a circular to Collectors of Customs stating that an Order-in-Council, dated April 26, has issued ordering that whereas the Minister of Marine has received assurances that the unexpired certificates of inspection held by Canadian steamboats plying to and from ports in the U.S. will be accepted by the U.S. authorities without any further inspection than is necessary to satisfy the U.S. inspectors that the condition of the steamboats, their boilers, machinery and life-saving equipment is as stated in the Canadian current certificate of inspection; and ordering that unexpired certificates issued by the U.S. authorities shall be accepted in Canada as evidence of lawful inspection of U.S. steamships plying to and from Canada and that no further inspection shall be required of such steamships beyond that which is necessary to satisfy the Canadian inspectors that the condition of the

steamers, their boilers, machinery and life-saving equipment is as stated in the U.S. current certificate of inspection. The Canadian inspectors will be supplied with temporary certificates to issue to such steamboats for presentation to the Collector of Customs at the port from which they clear, in proof of the Canadian inspectors being satisfied as to the condition of the steamships, and the Collectors of Customs are to treat such vessels as having satisfactorily passed Canadian steamboat inspection. This regulation came into effect on May 6, instant, and is to be observed by Collectors of Customs and Steamboat Inspectors until further instructions are issued on the subject.

Regulations Respecting Cornwall Canal.

The following Dominion Order-in-Council respecting the Cornwall, Ont., Canal was passed April 18:—"Every vessel shall be brought to a dead stop 100 ft. from the nearest gates of the lock. The winch cable must there be secured to some suitable post on the vessel by the vessel's crew, after which the vessel will be drawn into the lock by the winch. Before the vessel moves under the impulse of the winch, all the usual and necessary lines for controlling the vessel must be out, and must be handled by the crew in such a way as will prevent too great speed being developed, and must be held at such a point as to effectually stop the vessel as soon as she is fully within the lock. While the vessel is being locked her crew must change the position of the winch cable in such a way as will allow the winch to pull the vessel out of the lock. When locking is completed, the vessel's crew must release the winch cable from the vessel."

A deputation consisting of J. A. Cuttle, President, Montreal; A. A. Wright, Toronto; C. A. Jaques, Montreal, and F. King, Secretary, representing the Dominion Marine Association, interviewed the Minister of Railways and Canals, May 17, and protested against the enforcement of the rules. A petition setting forth in detail the objections of the Association to the various rules was subsequently sent to the Department.



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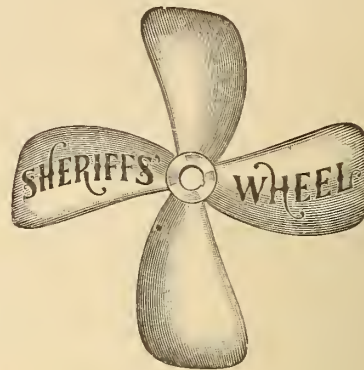
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SAILINGS FROM MONTREAL AT DAYLIGHT.

S.S. Southwark, June 3; S.S. Dominion, June 10; S.S. Ottawa, June 17; S.S. Kensington, June 24; S.S. Canada, July 1; S.S. Southwark, July 8; S.S. Dominion, July 15; S.S. Ottawa, July 22; S.S. Kensington, July 29.

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Canada & Michigan Bridge & Tunnel Co.

THE annual general meeting of the Canada and Michigan Bridge and Tunnel Company, for the election of directors and other general purposes, will be held on Thursday, the 8th day of June, 1905, at the hour of twelve o'clock noon, at the Crawford House, in the City of Windsor.

NICOL KINGSMILL,

10th May, 1905. Secretary C. & M. B. & T. Co.

THE CANADA SOUTHERN RAILWAY CO.

THE annual general meeting of the Canada Southern Railway Company will be held on Wednesday, the 7th day of June, 1905, at the hour of eleven o'clock in the forenoon, at the company's head office in the City of St. Thomas, for the following and other general purposes, viz.:—to elect Directors, to authorize the company to guarantee the bonds or other securities of, or to otherwise loan its credit to, or become a guarantor for or to subscribe for or become the owner of stock in any Railway Tunnel Company with which its line is now, or may hereafter be, in connection, and to empower the Directors to do all matters necessary to effectually carry out any such arrangements.

NICOL KINGSMILL,

Secretary Canada Southern Ry. Co

Dated at St. Thomas the 26th day of April, 1905.

LIST OF VESSELS REGISTERED IN CANADA FROM JANUARY 1 TO MAY 13.

Name.	Number.	When and Where Built.	Engines, etc. rig.	L'gth	B'dth	D'pth	Gross tons.	Reg. tons.	Home Port.	Owners.
Alert.....	86,871	Bristol, Me., 1880.....	10 8 N.H.P., Screw.	ft. 98.3	ft. 19.1	ft. 7.4	105	63	Sydney, N.S.....	F. D. Macdonald and E. M. Johnston, Sydney, N.S.
Alert.....	117,011	Not given.	1 2 " "	33.5	10.3	4.2	12	8	Vancouver, B.C.....	R. Draney, Vancouver, B.C.
Assiniboia.....	116,984	Medicine Hat, Assa., 1903.	4 26 " St. wh'l.	73.0	18.5	4.0	98	41	Rat Portage, Ont.....	H. H. Ross, Medicine Hat, Assa.
Atomic.....	116,924	Birmingham, Eng., 1886.	1 6 " Screw.	28.0	7.7	3.0	3	2	Victoria, B.C.....	Victoria Chemical Co. (Ltd.)
Clutha.....	111,957	N. Westminster, B.C., 1903	2 7 " "	45.0	11.4	4.1	28	19	N. Westminster, B.C.	St. Mungo Canning Co. (Ltd.), N. Westminster, B.C.
Daniel.....	116,726	St. John, N.B., 1904.....	12 0 " "	50.8	12.9	5.8	29	20	St. John, N.B.....	Tapley Bros., St. John, N.B.
Edna.....	117,009	Vancouver, B.C., 1905.....	5 6 " "	38.3	11.0	5.2	18	12	Vancouver, B.C.....	J. Leckie & T. F. E. Kinnell, Vancouver, B.C.
Hazel B.....	117,101	North Bay, Ont., 1904.....	2 7 " "	65.0	12.7	3.6	27	22	Ottawa, Ont.....	M. C. McCaw, et al, North Bay, Ont.
Fleada.....	116,727	St. John, N.B., 1905.....	1 2 " "	35.8	7.4	3.7	6	4	St. John, N.B.....	J. D. Purdy, St. John, N.B.
Richmond.....	117,923	Sydney, N.S., 1905.....	20 5 " "	112.5	18.0	8.3	162	105	Sydney, N.S.....	Richmond S.S.Co. (Ltd.), Sydney, N.S.
Royal City.....	111,956	Poplar, Eng., 1886.....	20 0 " "	96.5	12.0	6.5	38	23	N. Westminster, B.C.	E. J. Fader, New Westminster, B.C.
Adam Hall.....	116,927	Victoria, B.C., 1904.....	26 " "	112.0	20.1	6.7	145	55	Victoria, B.C.....	Big Bend Lumber Co., Arrowhead, B.C.
And. J. Smith.....	117,031	Manitowoc, Wis., 1893.....	53 " "	117.0	23.6	8.6	387	209	S. S. Marie, Ont.....	F. M. Perry, S. S. Marie, Ont.
Belle.....	117,013	Vancouver, B.C., 1905.....	16 " "	84.5	18.7	8.0	94	64	Vancouver, B.C.....	B.C. Mills Timber and Trading Co., Vancouver, B.C.
Dufferin.....	116,896	Shelburne, N.S., 1905.....	42 " "	108.0	25.0	8.6	211	99	Yarmouth, N.S.....	Burwell Johnson Iron Co., Yarmouth, N.S.
Enterprise.....	116,926	Pilot Bay, B.C., 1905.....	2 " "	47.0	10.0	5.0	20	14	Victoria, B.C.....	F. Coyle, Pilot Bay, B.C.
Eu Jennie.....	116,367	Goderich, Ont., 1905.....	8 " "	52.0	12.0	5.3	22	15	Goderich, Ont.....	J. Lapointe, Spanish River, Ont.
Geneva.....	117,071	Orillia, Ont., 1905.....	11 " "	80.7	16.3	5.3	92	58	Toronto.....	W. Thomson, Orillia, Ont.
Hazel Dollar.....	121,212	Glasgow, Scotland, 1905.....	241 " "	370.0	50.0	26.7	4304	2803	Victoria, B.C.....	R. Dollar, Victoria, B.C.
Isaac Lincoln.....	116,400	Marine City, Wis., 1898.....	42 " "	133.5	30.2	9.2	375	165	Sarnia, Ont.....	F. E. Hall, L'Original, Ont.
Kestrel.....	116,379	Port Arthur, Ont., 1904.....	9 " "	36.5	9.5	4.0	13	9	Port Arthur, Ont.....	P. S. Bowell & Co., Port Arthur, Ont.
Louis A.....	117,025	Pt. Hawkesbury, N.S., 1903	1 25 " "	25.6	6.6	3.5	3	3	Sydney, N.S.....	L. A. Petrie, Glace Bay, N.S.
Lucania.....	116,801	Sorel, Que., 1904.....	16 73 " "	42.4	13.0	6.0	18	12	Sorel, Que.....	S. Paul, Sorel, Que.
Lulu Eddy.....	116,250	W. B. City, Mich., 1888.....	6 50 " "	51.3	13.3	5.6	29	18	S. S. Marie, Ont.....	J. Gauley, S. S. Marie, Ont.
Nina.....	116,770	1903.....	1 " "	24.5	6.7	2.5	3	2	Toronto.....	Mrs. A. A. Glanville, Cutler, Ont.
Phyllis.....	116,380	1903.....	4 " "	21.0	5.4	2.5	2	1	Port Arthur, Ont.....	L. Walsh, etc., Port Arthur, Ont.
Rover.....	116,770	Peterboro, Ont., 1905.....	2 " Paddle	40.0	9.5	3.2	19	12	Peterboro, Ont.....	The Dickson Co. Ltd., Peterboro, Ont.
Samson.....	116,925	Victoria, B.C., 1905.....	13 " "	115.5	30.2	5.3	425	248	Victoria, B.C.....	W. Turpel, Victoria, B.C.
SAILING VESSELS										
Acme.....	116,517	Lunenburg, N.S., 1904.....	Schooner.....	89.4	24.6	9.2	101	91	Lunenburg, N.S.....	T. Richardson, et al, Lunenburg, N.S.
Annie Ethel.....	117,024	Gabonens, N.S., 1905.....	".....	62.0	19.6	7.8	51	51	Sydney, N.S.....	G. Harris, Louisburg, N.S.
Eva Jane.....	116,518	Lunenburg, N.S., 1904.....	".....	94.6	25.0	10.0	116	93	Lunenburg, N.S.....	A. Corkum, et al, Lunenburg, N.S.
St. Dominique.....	116,889	Petite du Grat, N.S., 1904.....	".....	47.0	13.0	6.9	21	21	Arichat, N.S.....	T. Marchand, et al, Petite du Grat, N.S.
W. K. No. 6.....	117,010	N. Westminster, B.C., 1903	Scow.....	69.0	29.0	6.8	151	151	N. Westminster, B.C.	L. Wilson and J. D. McKee, New Westminster, B.C.
A. M. C.....	117,014	Vancouver, B.C., 1902.....	".....	79.0	30.0	7.5	160	160	Vancouver, B.C.....	W. H. Armstrong, Vancouver, B.C.
Amita.....	116,522	Lunenburg, N.S., 1905.....	".....	48.6	13.5	6.1	16	16	Lunenburg, N.S.....	S. Winters, Rose Bay, N.S.
Ellwood.....	116,521	Lunenburg, N.S., 1905.....	".....	48.5	13.5	6.1	16	16	Lunenburg, N.S.....	J. Zinek, Lunenburg, N.S.
Eva's Robins'n.....	116,951	Manistee, U.S.A., 1871.....	".....	163.6	29.2	10.0	369	355	Sarnia, Ont.....	F. E. Hall, L'Original, Ont.
Evclyn.....	116,520	Lunenburg, N.S., 1905.....	".....	48.1	13.8	6.0	18	18	Lunenburg, N.S.....	J. Geldert, Louisburg, N.S.
Gladys.....	116,827	Clark's Harbor, N.S., 1905.....	".....	31.6	11.9	5.7	12	12	Barrington, N.S.....	B. L. Goodwin, Cape Island, N.S.
Hiram Walker.....	116,601	Champlain, N.Y., 1886.....	".....	94.4	17.6	7.0	104	102	Montreal.....	Montreal Gravel and Sand Co.
M.G. Schwartz.....	116,519	Lunenburg, N.S., 1905.....	".....	95.6	25.4	10.4	122	98	Lunenburg, N.S.....	J. H. Schwartz, Lunenburg, N.S.
Miriam May.....	116,852	Shelburne, N.S., 1905.....	".....	74.0	21.0	8.2	65	65	Shelburne, N.S.....	E. Inkpen, Burin, Nfld.

The petition sets forth that the regulations, while of no practical advantage in any way, will cause vexatious delay, and largely increase danger in the passage of the canals, and will thus prove extremely prejudicial to the best interests of the canal. The objections, as given in detail, set forth that if carried out, a vessel would be out of control 100 ft. away from the lock about to be entered, would be hampered in entering the lock, and liable to damage the gates or herself; and would be expelled from the lock in an improper direction, and in a manner endangering her safety. The petition concludes: Captains and pilots of experience in every case report delays of at least 2½ or 3 hours over and above the time occupied before these regulations were enforced, and unite in condemning the regulations as unsafe, unsatisfactory, and, in a wind, quite impracticable. The whole process would appear to be cumbersome and laborious, entailing much extra labor from the crews of vessels without apparent advantage, and causing as well the most vexatious delays in navigation.

Notices to Mariners.

The Department of Marine has issued the following notices to mariners:—

No. 25. April 5.—New Brunswick—56. South coast, Bay of Fundy, Point Lepreau, temporary fog alarm. Nova Scotia—57. Bay of Fundy, Annapolis basin, Bear River entrance, Winchester point, lighthouse established. 58. South coast, Jeddore rock, color of lighthouse.

No. 26. April 6.—British Columbia—68. Vancouver Island, southeast coast, Victoria Harbor, off Shoal point, buoy established. 65. Boundary bay, Mud bay, beacons.

No. 27. April 15.—New Brunswick. 64.

South coast, Bay of Fundy, Point Lepreau, change in fog alarm.

No. 28. April 20.—Nova Scotia—69. South coast, Halifax harbor, changes in gas buoy lights. 70. Halifax harbor, McNab Island, government rifle ranges.

No. 29. April 25.—British Columbia—72. Entrance to north arm of Fraser River, lights established.

No. 30. April 27.—Quebec—74. Chaleur Bay, north side, Port Daniel, hand fog horn at light station. 75. River St. Lawrence above Quebec, Pointe à Basile, back range tower rebuilt.

No. 31. May 4.—British Columbia—76. Queen Charlotte sound, new channel, Christie passage, Balaklava Island, Scarlett point, lighthouse point. 77. Broughton strait, Mitchell bay, kelp patch reported. 78. Queen Charlotte sound, approaches to Knight and Kingcome inlets, uncharted rocks; hydrographic notes. 79. Northern waters, Laredo channel, uncharted rocks, sailing directions. 80. Northern waters, schooner passage, uncharted rock. 81. Northern waters, Douglas channel, uncharted rock.

No. 32. May 4.—Nova Scotia—82. South coast Lockport (Rugged Island harbor), uncharted rock.

No. 33. May 5.—Quebec—85. River St. Lawrence, below Quebec, eastern limits of Quebec, pilotage district changed from Bee Island to Father Point.

No. 34. May 8.—Ontario—86. Ottawa River, Lake Deschenes, Britannia, change in position and character of light.

The Department of Marine has issued an index to the notices to mariners published during 1904. Copies can be obtained by shipmasters and others interested on application to the Department at Ottawa.

Maritime Provinces and Newfoundland.

Geo. McLeod, a former shipbuilder of Kent County, N.B., died at St. John, N.B., May 8.

C. T. Schmidt has been appointed Dominion Inspector of Boilers for the Halifax division.

Capt. C. E. Myers, of Charlottetown, P.E.I., has passed his examination as "extra" master.

Capt. P. Parker, of Yarmouth, N.S., formerly in the service of the Quebec Steamship Co.'s Fontabelle, and prior to that in sailing vessels, died at New York, May 1.

A proposal is being considered for the formation of a company to purchase a steamer, now being built at Glasgow, Scotland, and run her between Halifax and Glace Bay, N.S. Jos. Woods, of Halifax, is primarily interested.

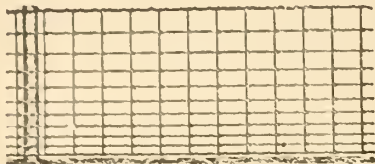
The str. Northumberland was placed on the run between Charlottetown, P.E.I., and Pictou, N.S., at the end of April, to relieve the freight congestion at Pictou, and the Princess was put on the run between Point du Clene, N.B., and Summerside, P.E.I.

The str. Scottish Hero, owned by the Canadian Lakes and Ocean Navigation Co., Toronto, struck on a rock recently outside Sydney harbor, N.S., and received some damage. The steamer is under charter to the Dominion Coal Co., for the season, to carry coal between Sydney and Montreal.

The Deer Island and Campobello Steamboat Co., of Bangor, Me., is negotiating for the purchase of the str. Champlain, of St. John, N.B., which it proposes to run between Bangor and the Canadian islands in the vicinity. The str. Viking, now on the route, is too small for the service.

A contract for a steamship service between Prince Edward Island and Newfoundland, has been awarded to R. J. Leslie, Halifax, N.S. The str. Amelia will be placed on the

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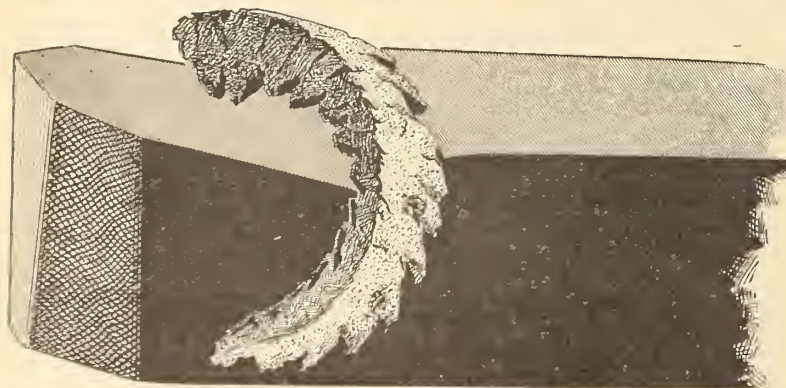
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run and will serve the following ports: Cardigan, P.E.I.; Pictou and Sydney, N.S.; Placentia and other Newfoundland ports.

The Department of Marine and Fisheries has issued some notes on the currents at the entrance of the Bay of Fundy, and on the steamship routes in its approaches, off southern Nova Scotia, from the investigations of the tidal and current survey in the season of 1904, W. B. Dawson, engineer, in charge.

The str. Dufferin has been placed on the east coast run from Halifax, N.S., formerly taken by the Wilfrid C., which has been sold to Beazley Bros. The Dufferin is a new steamer, 227 tons gross, with a speed of 10 knots an hour, and has accommodation for 50 passengers. Capt. W. F. Murdoch is the commander and E. Craig the chief engineer.

The Wobun Steamship Co., and the Wasie Steamship Co., are the titles of two companies incorporated under the Dominion Companies' Act, to carry on a general navigation business in Canada. The provisional directors in each instance are: J. D. and J. C. McGregor, T. Cantley, G. F. McKay, H. Graham, of New Glasgow, N.S. The capital of the first company is \$48,000, and of the second \$18,000.

Summerside and Pointe du Chene route. Should this be decided on, the new boat would probably be ready for next year's service. The Northumberland would then be put on the Charlottetown and Pictou route, to take the place of the Princess, which would probably be disposed of. The President, Capt. Richards, and one of the directors, B. Rogers, were in Toronto recently and made a trip on the Turbinia, during which they thoroughly inspected her.

Province of Quebec Shipping.

It is proposed to provide a steam tug for the use of the pilots at Father Point. The steamer will be built on order of the Minister of Marine.

The new str. Lady Eileen for the Gaspé coast trade reached Campbellton, N.B., May 4, and made her first trip to Gaspé and other Quebec points, in the following week.

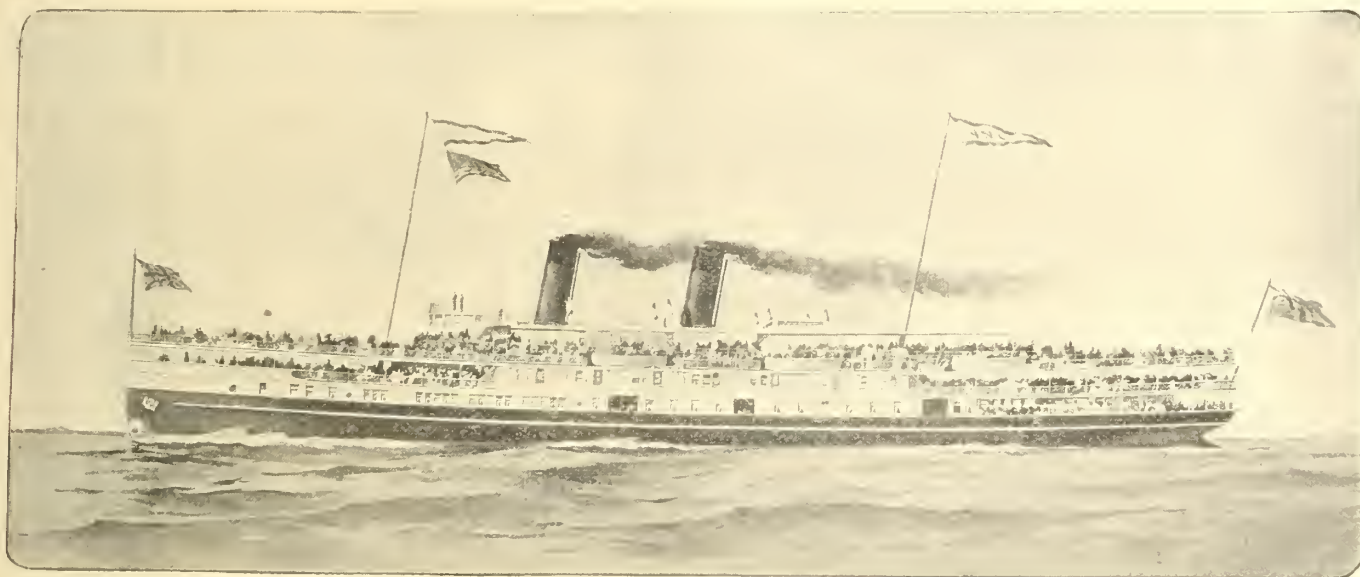
The south wall encircling the inner basin at the Louise dock, Quebec, gave way, April 20. The dock was built by the Dominion Government, which will undertake its repair. The damage is estimated at over \$20,000.

R. Reford has resigned his position as mem-

steamer for use on the St. Lawrence. It is proposed that the new steamer shall be 160 ft. long between perpendiculars, and have a speed of 14 knots an hour.

The St. Lawrence Floating and Wrecking Co. (Ltd.) has been incorporated under the Dominion Companies' Act, with a capital of \$200,000 and offices at Montreal, to own and operate docks and to carry on a general wrecking and salvage business. The provisional directors are: J. W. Harris, F. X. and J. Durand, T. Lessard, P. G. Martineau, of Montreal.

The Montreal Harbor Commission has had considerable trouble lately in connection with the new steel sheds, as well as with the question of the allocation of berths for the steamships for the season. A settlement of both has been reached, the first after a conference of engineers, and the second after a discussion with the Minister of Marine. The changes in the plan of construction of the sheds will involve an extra cost of \$10,000 per shed. The berth question was left in the hands of the Minister of Marine, the President of the Harbor Commissioners, the Board Mayor to arrange all differences, and the Board agreeing to adopt the recommendations made by them.



NIAGARA NAVIGATION CO.'S NEW STEAMSHIP TO BE BUILT BY THE CANADIAN SHIPBUILDING CO. FOR DESCRIPTION SEE APRIL ISSUE.

A new wharf and warehouse are to be erected at St. John, N.B., the total cost of which, together with the necessary dredging, will be \$600,000. The Dominion Government will provide the cost of the dredging, which is estimated at \$300,000. The new wharf will give berths for four additional steamers, and is expected to be completed in 1906. Under the arrangement for the construction the city will pay back to the C.P.R. the \$50,000 it gave for wharfage at Sand Point, and will thereby secure sole control of the wharves there.

The Harbinger Steamship Co. has been incorporated under the Dominion Companies' Act with a capital of \$9,000 and offices at River Hebert, N.S., to carry on a general navigation business, and in connection therewith to purchase the str. Harbinger. The Harbinger is a screw steamer of 17 n. h.p., built at Shelburne N.S., 1901, having the following dimensions:—Length, 97 ft.; breadth, 20 ft.; depth, 8.4 ft.; tonnage—gross 109 tons, register, 46 tons. The provisional directors are: A. V. Rockwell, H. and C. Kelly, A. W. Pugsley, of River Hebert.

The Charlottetown Steam Navigation Co. of P.E.I. is considering the question of having a larger and faster boat built for the

ber of the Montreal Harbor Commission, and it is stated that he will be succeeded by A. A. Allan as representative of the shipping interests.

The Government dredge W. S. Fielding, which is under construction at the Government dockyard at Sorel, will not be ready until late this year. The dredge was under construction in 1903, and was to have been at work on the St. Lawrence channel in 1904.

The directors of the Richelieu and Ontario Navigation Co. entertained a large party on board the str. Montreal, on May 20, when she was given a trial trip from Montreal to Point aux Trembles and return, prior to going on her regular run between Montreal and Quebec.

The str. Canada which was sunk in June, 1904, after the collision with the Cape Breton and was afterwards raised, has been rebuilt by the Richelieu and Ontario Navigation Co., at Quebec, and completed at Sorel. She left for Montreal, May 1, to take up her regular run between that port and Quebec.

Press reports from London, Eng., state that negotiations are in progress between the Dominion Government and a shipbuilding firm for the construction of another icebreaking

Ontario and the Great Lakes.

The Toronto Ferry Co. has added a new steamer, the Island Queen, built at Bronte, Ont., to its fleet.

T. R. Cossey is constructing a small steamer on Lake Wabigoon, Ont., for the Lake Wabigoon Steamboat Co.

The keel has been laid at Collingwood, Ont., for a steel drill scow for the Boone Dredging Co., for use in harbor improvement work.

The Department of Railways and Canals is considering tenders for the docking at the Port Colborne entrance of the Welland Canal.

The lighthouse at Burlington Beach is to be reconstructed. The proposition is to make the tower higher, and to add a fog signal apparatus.

Jas. Swift and Co. have chartered the freight steamer Nile to run between Kingston and Ottawa, Ont., on the Rideau Canal, stopping at all way ports.

A tug named the Frank L., for Capt. W. E. Oldfield, Parry Sound, Ont., has been launched. Her dimensions are: length, 72 ft.; breadth, 14 ft.; depth 6 ft.

The City of Montreal, formerly the China, reached Toronto May 3, where she is being



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General Passenger Agent, New York.

W. B. WHEELER,

General Agent, Pass. Department, Buffalo, N.Y.

fitted with two boilers and a compound engine at the Bertram Engine Works.

Capt. A. Milloy, who for a number of years was master of the City of Toronto, plying between Toronto and the Niagara River, died at Niagara-on-the-Lake, April 27.

The Crawford Tug Co., Warton, Ont., has added to its fleet a new steel frame, oak planked tug, 95 ft. long. The tug is stated to be one of the most powerful on the Upper Lakes.

The str. Ednaivan, trading from Thessalon among the islands of Lake Huron, ran on Bigbee Island, during a fog, May 5, but was towed off without having received material damage.

The Dominion Government steamer Aberdeen, which was caught in the ice at Soulanges Canal in Dec., 1904, reached Toronto, May 5, where she is to have new boilers installed at the Polson Iron Works.

Capt. Burke of the Midland Queen was presented with a hat and a purse of gold by the Fort William, Ont., Board of Trade, in recognition of his having taken the first steamer into port for 1904 and 1905.

The Dominion Government has decided to abolish the position of collectors on the canals. As no tolls are now collected, the compilation of statistics has been discontinued, and there is therefore nothing for them to do.

The lengthening and refitting of the str. Macassa having been completed, she left Collingwood May 6, for Hamilton. Representa-

tives of the Hamilton Steamboat Co. accompanied the steamer to her home port. She is now on the run between Hamilton and Toronto, in conjunction with the Modjeska.

The lighthouse tender Scout which was burned by an explosion of an acetylene gas buoy at Kingston, Ont., has been raised and is being reconstructed. For the present the Scout's work is being done by the Donnelly between Kingston and Prescott, and by the Pierpont between Prescott and Montreal.

Lumber men and others interested in the navigation of the Ottawa River, recently waited on the Dominion Government and asked for an appropriation of \$160,000 to build dams at the foot of Kippawa and Temiskaming lakes, at Cass Expanse and Barriere River, to regulate the flow of water, and maintain the level.

The Rainy River Navigation Co. has decided to discontinue running the Keenora on Rainy River during the current season, replacing her on that section of the route between Rat Portage and Fort Frances by the Edna Brydges. The officers for the current year include G. A. Graham, Manager, and M. McCullough, Secretary-Treasurer.

The officers and directors of the Brockville Navigation Co. for the current year are: President, N. Cossitt; Vice-President, O. K. Fraser; Managing Director, W. S. Buell; other directors, J. Grant, R. Bowie. The report of the directors said the past year was the most

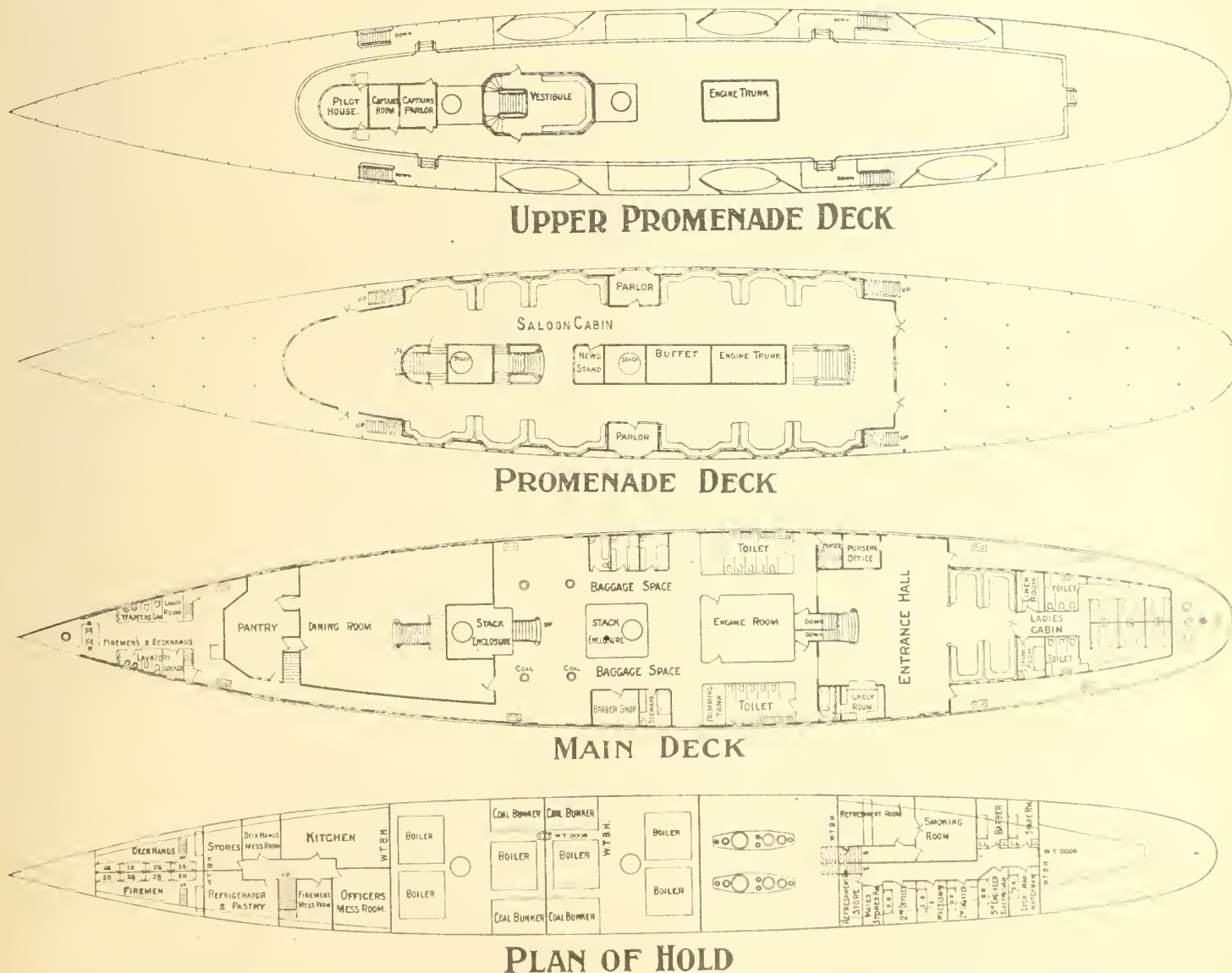
prosperous in the company's history, and a substantial dividend was declared.

The Montreal and Cornwall Navigation Co. has put in new boilers and overhauled the engine of the str. Filgate, and has also overhauled the engine of the str. Garnet. Its str. Empire, which was formerly the White Star, burned at Toronto, 1903, will be placed on the Toronto-Oakville route. The hull was towed from Toronto to Cornwall, where she was rebuilt.

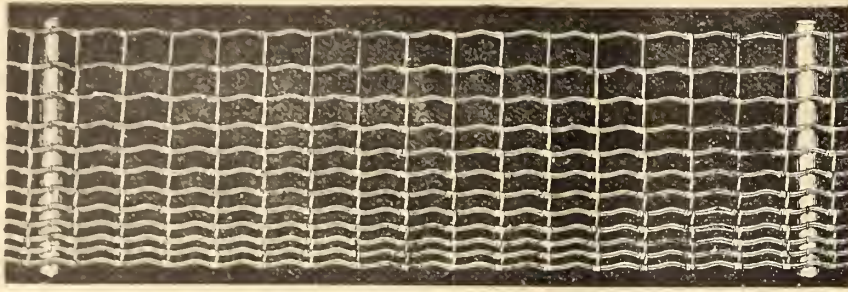
The str. Turbinia while in the dry dock at Kingston, Ont., had a new centre propeller fitted, and had some other alterations made. She began her season's trips May 1, making the run from Hamilton to Toronto at the rate of over 24 miles an hour. A new waiting-room and freight shed are being erected on the wharf at Toronto, a tent being used pending their erection.

In connection with the notice given that vessels could not be loaded at the elevators at Port Arthur and Fort William after 6 p.m., the Dominion Marine Association has appointed a deputation to interview the Minister of Trade and Commerce to protest against it being put in force. The Association learns that no order on the subject has been issued by the Department, and the matter is being investigated.

Homer & Co. has been incorporated under the Ontario Companies' Act, with a capital of \$50,000 and offices at Gravenhurst, Ont., to take over the business of Homer & Co., gen-



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eral merchants, and in connection therewith to own and operate steam and other vessels. The firm is engaged in a general supply business and employs steamers on the Muskoka Lakes to deliver freight, etc., to hotels, summer residences, etc.

We are advised that the Dominion Government has not purchased the str. Manitou from the United States and Dominion Transportation Co., and has no intention of doing so. According to the press reports the Manitou was to be used for hydrographic survey work on Lake Superior, to replace the Bayfield, which was to be transferred to Hudson Bay. The Bayfield has been fitted out, and left Owen Sound, May 4, to continue the work of making a survey of Lake Superior.

The Fort William Dredging and Harbor Improvement Co. has been incorporated under the Ontario Companies' Act, with a capital of \$150,000 and offices at Fort William, Ont., for the purpose of erecting dry docks, to engage in dredging, and generally to do any improvement work in connection with the same. The incorporators are: E. R. Wayland, E. S. Rutledge, C. H. Jackson, F. R. Morris, T. E. Dean, L. L. Pelliter, W. Stevenson, Mrs. G. Morton, of Fort William, Ont.

The following additional appointments to steamers have been made since the list in our last issue was made up: Charles Williams, Sr., engineer str. North King, Lake Ontario and Bay of Quinte Steamboat Co.; J. Ewart, captain and A. E. Foote, engineer, str. Neebing; M. Heffernan, captain, str. Niagara, Ontario and Quebec Navigation Co.; A. Simard, captain, G. Gagnon, engineer, str. Chicoutimi; L. Valois, captain, str. Chambly; Richelieu and Ontario Navigation Co.; E. Castonguay, captain str. Filgate; A. Hence, captain str. Garnet; O. Gillespie, captain, L. Marchand, engineer, str. Empire; Montreal and Cornwall Navigation Co., Cornwall, Ont.

Manitoba and the Northwest Territories.

The str. Frank Burton has been purchased by J. A. Howell, Selkirk, Man. She is being fitted up for passenger service on the river and Lake Winnipeg.

The first steamers arrived at Athabasca Landing, Alta., from Lesser Slave Lake, Artha., May 1, and the first return steamer left Athabasca Landing May 3.

A steamer is being built at Chippewyan, Artha., for which an engine and boiler is being taken in from Athabasca Landing, at which place a new steamer, Midnight Star, was launched May 2.

The Department of Marine has arranged to construct a 124 ft. twin screw launch at Sorel during the summer, for the use of the Mounted Police on Hudson Bay. The launch will have a speed of 12 knots an hour.

The Dominion Government str. Arctic will return to the Atlantic Ocean in the fall for the purpose of an overhaul, and will go back in 1906. It has been decided to have an annual trip made to the Arctic Ocean and Hudson Bay, instead of permitting the steamer to remain there for two or more years at a time.

B.C. and Pacific Coast Shipping.

W. E. Laird, of Victoria, B.C., has been appointed shipping master there, succeeding Capt. H. G. Lewis, deceased.

Navigation opened on the Yukon River, May 1, when the first freight craft started out from Whitehorse for Dawson.

The tug Laura of Vancouver has been purchased by Pearce and Garfield of New Westminster, for their Fraser River trade.

S. A. Mandy has purchased a small tug in Vancouver and had it conveyed overland to the Three Valley Lake, near Revelstoke, B.C.

A. B. McNeill, Victoria, B.C., has been appointed Secretary-Treasurer of the Pilotage District of Victoria and Esquimalt, succeeding E. Crow Baker.

The Revelstoke Navigation Co. has placed its str. Revelstoke on the route between Revelstoke and the Big Bend country. The str. will make two round trips a week.

The Vancouver Skeena River Navigation Co. has been incorporated under the B.C. Companies' Act with a capital of \$100,000 to carry on a general navigation business.

The str. Columbia, built at Vancouver, B.C., for the Anglican Church Missions on the northern coast has been dedicated. The vessel is fitted with a gasoline engine of 20 h.p., and sails can also be used.

Capt. Balcom, who recently brought the str. Orion out from Norway to Victoria, with a view of engaging in whaling off Vancouver Island, is negotiating with the Department of Marine for the purpose of establishing a life saving station there.

The Merchants' Service Guild of Canada has called the attention of the Department of Marine to the conduct of a master mariner named Bonser, lately in charge of the str. Hazleton, alleging the ramming of opposition steamers and asking that a commission be appointed to investigate the complaints.

An order for another steamer has been placed at Glasgow, Scotland, for the Dollar Line, owned by R. Dollar, of San Francisco, Cal. Most of the steamers of the line are registered at Victoria, B.C.

The Dominion Government is asking for tenders for a 12 knot an hour steamship service between St. John, N.B., and London, Eng. They are to be fitted with accommodation for carrying perishable cargoes with cool temperatures and refrigerating apparatus and space of 2,500 cubic feet.

The Supreme Court has been asked by the Dominion Government to decide as to the validity of the act respecting ferries and its amendments. The case was argued by counsel for the Dominion Government, and for the Ontario Government, whilst the Quebec Government filed a factum. Judgment was reserved.

The management of the Manchester Liners, which have hitherto made Montreal their summer port in Canada, is contemplating changing to Quebec. At present a considerable quantity of cargo is taken on at Quebec, but it is stated that the Great Northern Ry. will provide a large proportion of cargo if the change is made. The steamers are owned in Manchester, Eng., and are among the largest freighters coming to Canada.

The question of the power of the International Waterways Commission to look into the question of the levels of the St. John River is being considered by the two Governments. The U.S. Government wants that river to be excluded from the scope of the Commissioners' enquiry whilst the Canadian Government holds otherwise. Residents in New Brunswick claim that trade is being injured on account of some obstructions placed in the river by residents in Maine, and a certain amount of friction has been occasioned thereby.

Among the Express Companies.

The headquarters of G. H. Waterhouse, Canadian Ex. Co.'s route agent, have been changed from Montreal to Kingston, Ont.

The Dominion Ex. Co. has published rates for summer routes on the lines of the Richelieu and Ontario Navigation Co., the Algoma Steamship Line, Northern Navigation Co., and United States and Dominion Transport Co., as well as the summer route to Europe via Quebec.

The Dominion Ex. Co. announces that Emo, Fort Frances and other points in the Rainy River district of Ontario, formerly reached by its service during the season of navigation, will not be re-opened this year. All shipments for these points must be way-billed for transfer to the Canadian Northern Ex. Co.

The Canadian Ex. Co. placed its service on the lines of the Prince Edward Island Ry., May 1, opening the following offices there: Alberton, Bear River, Bloomfield, Breadalbane, Cardigan, Charlottetown, Freeton, Georgetown, Hunter River, Kensington, Miscouche, Morell, Mount Stewart Jet., New Wiltshire, O'Leary, Port Hill, St. Peters, Souris, Tignish, Wellington. The summer route between Point du Chene and Summerside has been opened.

The Western Ex. Co. has notified agents of the discontinuance of universal through billing of special traffic matter, May 1. Business for offices of other express companies must now be way-billed to and routed via the natural direct transfer point near destination; routing label has to be affixed to each shipment, showing point to which it is way-billed. Other express companies on same date discontinued through way-billing of special traffic matter, 7 lbs. and under, to all exclusive offices of the Western Ex. Co., and from all exclusive points to W. Ex. Co.'s common points.

The Canadian Ex. Co. announces that in addition to the facilities afforded by the Atlantic and Lake Superior Ry. from Metapedia to certain points in Gaspé county, Que., the Interprovincial Navigation Co. has arranged a summer steamer service from Campbellton, N.B., to Gaspé, Que., touching at a number of intermediate ports. The service will be twice a week; express matter for points reached by steamer only are to be routed via Campbellton, and for points reached by steamer and rail to be routed by shipper. No money, or valuables or C.O.D. parcels will be carried beyond Campbellton.

Telegraph and Cable Matters.

The Western Union Telegraph Co. has extended its money transfer system to foreign countries.

The C.P.R. Telegraph Department is stringing a new telegraph line between Guelph and Goderich, Ont.

The C.P.R. Telegraph Department is extending its call-box system to Halifax, N.S., and St. John, N.B.

The C.P.R. Telegraph Department has strung a second wire between Hochelaga and St. Agathe, Que., to accommodate the increased business.

The Great North-Western Telegraph Co. has established the Dominion Messenger and Signal Co. in connection with its business. S. B. McMichael is Superintendent.

M. Crean is reported to have been appointed Superintendent of the Dominion Government Yukon telegraphs, vice J. B. Charleson, appointed Dominion Inspector of Public Buildings.

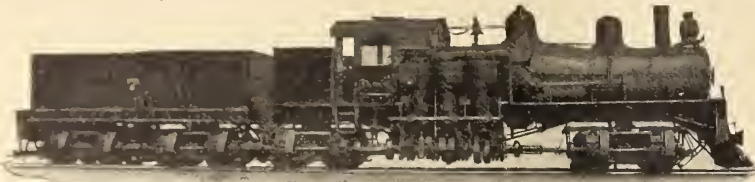
The Newfoundland Legislature has passed an act providing for the payment of the amount awarded the Reid Newfoundland Co., in connection with the taking over of the telegraph lines by the Government.

E. H. James, B.Sc., of McGill University, son of N. James, in charge of the Anglo-American Cable Co.'s office at Heart's Content, Nfld., has been appointed to a position on the engineering staff of the Westinghouse Manufacturing Co., Pittsburg, Pa.

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Canada Atlantic Railway Elevator, Coteau Landing, Que.....	"	500,000 "
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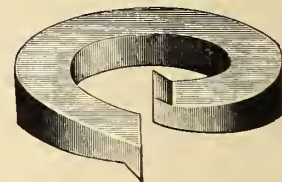
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**STEAM
ATTACH-
MENTS**

Australia—will be held in London, Eng., in the fall. Sir Wm. Mulock will represent Canada. The conference is for the purpose of adjusting certain differences, and an effort will be made to institute a more vigorous policy, so that the Pacific cable may become a more important factor in bringing Australia, Canada and England closer together in trade matters.

The wireless telegraph stations (Marconi system), equipped by the Department of Marine, are situated at Fame Point, Belle Isle, Que.; Heath Point, Anticosti Island; Point Amour, Labrador; Cape Ray, Cape Race, Newfoundland; and were in operation prior to the close of navigation in 1904. Since then a station has been equipped on Sable Island, off Nova Scotia. In the official test made of the stations it was ascertained that they had a range of from 115 to 130 miles, although in the case of the Heath Point station, vessels were held for some miles further. From all of these stations vessels are reported and news supplied. The Belle Isle and Port Amour stations have proved exceptionally valuable in communicating to steamers coming through the Straits of Belle Isle, news as to weather conditions prevailing in the straits. It has been decided to increase the power at the St. Lawrence stations so that the stations may communicate with one another. In order to complete the chain of stations from Fame Point to Belle Isle or Cape Ray, two other stations will be established at suitable points. Three of the Government steamers—Canada, Minto and Stanley—have been fitted with the Marconi apparatus.

High Tension Wires on Railway Right-of-Way.

By W. J. Camp, Electrical Engineer C.P.R.
Telegraphs.

Installations are being made at various points throughout the continent for generating electrical power and transmitting it to a distance; the voltage on the transmission wires varying from 10,000 to 70,000 volts according to conditions. Applications have been made to the different railway companies for the privilege of carrying the transmission line along the railway right-of-way, and it is altogether likely that the number of these applications will increase. The main object of this paper is to bring the subject up for discussion, as I have very little data.

The C.P.R. Telegraph Department has generally opposed granting permission, for various reasons, such as danger to life and property, induction on telephone lines, etc. Up to the present the working of the C.P.R. telegraph wires has not been affected, although there are several power lines paralleling the line, for instance, in British Columbia, 20,000 volts from Nelson to the power house, 16 miles; from the power house to Rossland, 55 miles, two power wires parallel the railway for 20 miles, then diverge for some distance, when they again parallel for 15 miles. The distance from the telegraph wires varies from 30 to 200 ft. On other sections in Eastern Canada power lines are on the right-of-way, in one case for 10 miles, but on the opposite side of the track and telegraph line.

I am informed that the Great North-Western Telegraph Co. has suffered somewhat from induction on a line between Chambly and St. Lambert, 20 miles, and between Shawinigan and Montreal, 95 miles. In the latter case the power line is on the opposite side of the track from Shawinigan to Joliette, 59 miles; from Joliette to L'Epiphanie, 12 miles, it takes a different route; from L'Epiphanie to Charlemagne, 10 miles, it is close to the telegraph line. No ill effects were experienced on the telegraph wires until they were transferred to the present route from

Joliette to Montreal, a new piece of railway, but since then it has been found very difficult to keep properly adjusted on account of a continual hum from the power circuit. The voltage of the power circuit is about 50,000.

It may be well to introduce here the subject of foreign wires crossing the railway right-of-way. In Canada there is a Railway Commission consisting of three persons who are appointed by the Governor-General-in-Council. All matters concerning the construction and operation of railways must be brought before this Commission. The Railway Act, 1903, amends and consolidates the law respecting railways and includes the duties and scope of the Railway Commission. Section 194 reads as follows:—"No lines or wires for telegraphs, telephones, or the conveyance of light, heat, power or electricity, shall be erected, placed or maintained across the railway without leave of the Board. Upon any application for such leave, the applicant shall submit to the Board a plan and profile of the part of the railway proposed to be affected, showing the proposed location of such lines and wires and the works contemplated in connection therewith; and the Board may grant such application and may order by whom, how, when, and on what terms and conditions, and under what supervision, such work shall be executed; and upon such order being made such lines and wires may be erected, placed and maintained across the railway subject to and in accordance with such order." The usual procedure is for the company desiring to cross, to make application to the railway company, and after the two companies have reached an understanding, it is submitted to the Railway Commission.

We have tried various devices for protection from high tension wires crossing the right-of-way, generally using something in the form of a cradle. An article in the *Electrical World*, May 21, 1904, recommended the use of high poles and short span, so that if the high tension wire broke, neither end would be long enough to reach either the track or telegraph line. We have a crossing arranged on this principle in British Columbia. The power wires are 400 ft. above the track; parallel with the track on each side, a heavy iron rod is supported on poles and earthed. Generally this plan is impracticable. The article also mentions a wire screen over the telegraph wires, but no protection for the railway. Another article proposed a somewhat similar arrangement, but using iron pins and arms which are earthed; and also a grounded cradle device. The Transactions of the American Institute of Electrical Engineers for Sept., 1904, contain a committee report on high tension transmission, which includes a list of protection devices for crossing other wires, highways and railways. From the discussion of the report it appears that the system of using a screen under the power wires was the one most in use, but many objections were raised, although nothing better was suggested.

In conclusion, I would ask—Should high tension lines be kept off the railway right-of-way, and if so, why? Also, what is the best device for protection where high tension currents cross the railway, and should the same be used for telephone and other wires also?

Since writing the above I received the following advice from our Superintendent in British Columbia, referring to the line between Nelson and Rossland: "No appreciable induction, excepting when power wires partially grounded between stations, then quite bad, even when location of ground is two or three miles away and across the river." I also find that the Postal Co. experiences a similar effect in the neighborhood of Detroit.

The foregoing paper was read before the American Association of Railway Telegraph Superintendents at Chattanooga, Tenn., May 17th.

General Telephone Matters.

The Quebec Legislature has passed an act amending the charter of the Bellechasse Telephone Co.

The Bell Telephone Co. is extending its line to Quoyne, Que., and along the Gatineau to Wakefield, Que.

The Bell Telephone Co. has constructed a rural telephone line between Stratford and Sebringville, Ont.

The Portneuf Telephone Co. has been authorized to increase its capital from \$10,000 to \$49,500, by supplemental letters patent under the Quebec Companies' Act.

Brantford's city council telephone committee has recommended the granting of an exclusive franchise to the Bell Telephone Co. for three years at \$800 a year.

The Canadian Machine Telephone Co. expected to complete stringing its wires in Peterboro', Ont., by the end of May. It will have 400 instruments in connection when the plant is ready for operation.

The Bell Telephone Co. has made application to the Montreal city council for permission to open up three miles of streets for the extension of its conduit system. It is also laying conduits in Kingston, Ont., and is extending its conduit system in Toronto and London, Ont.

The Provincial Telephone Co. has been incorporated under the New Brunswick Companies' Act with a capital of \$9,000 and offices at Andover, N.B., to carry on a general telephone business in Victoria county. The provisional directors are: D. Fraser, Fredericton, N.B.; H. S. Giberson, J. F. Tweedale, H. W. Beveridge, Gordon, N.B.; J. Burgess, Grand Falls, N.B.; A. Straton, Andover, N.B.

The Campobello Island Telephone Co. has been incorporated under the New Brunswick Companies' Act, with a capital of \$2,000, and offices at Wilson's Beach, N.B., to construct telephone lines between Wilson's Beach and Welchpool, N.B. The incorporators are: W. E. Ludlow, A. Matthews, J. L. Savage, J. Brown, Jr., J. W. Matthews, M. Calder, W. Osborne, Wilson's Beach; J. M. Johnston, Welchpool, N.B.

The Burgessville Telephone Co. of Ontario has been incorporated under the Ontario Companies' Act, with a capital of \$40,000, and offices at Burgessville, Ont., to carry on a general telephone business within Oxford county. The incorporators are M. Emigh, J. G. Corless, North Norwich tp.; H. E. Service, H. Sneath, Burgessville; A. E. Wilson, E. F. Park, East Oxford tp.; W. T. Nutt, Dereham tp., all of Oxford county, Ont.

The commissioners of the Temiskaming and Northern Ontario Ry. have decided to construct a telephone line between North Bay and New Liskeard, Ont., for its own purposes, and also to serve local customers. It is probable that the proposed line will be used as a trunk line connecting the independent companies now being established at Haileybury and New Liskeard, and possibly will connect at North Bay with the Bell Telephone Co.

The Ontario Telephone Co. is the title of a company which is applying for a charter of incorporation at the current session of the Ontario Legislature. The applicants are N. Andrews, J. Muir, T. Elliott, R. Ryerson, W. S. Brewster, of Brantford; the proposed capital is \$200,000, and the offices are to be at Brantford, Ont. The company desires to carry on a general telephone business, and to make connections with the lines of any other telephone company.

The Nova Scotia Telephone Co. has resumed work on the construction of its trunk lines between Amherst and Springhill Jet. Of these lines, one will be for the through line to Halifax; one for the through line to Oxford,

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May be desirable colors; but when one selects white or a tint, he does not want brown or black.

Is the only white pigment that holds its color in marine or railway work—therefore OXIDE OF ZINC is the only available pigment for white or tints on ships or boats or on railways.

FREE our practical Pamphlets:

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- "Paints in Architecture,"
- "Specifications for Architects,"
- "French Government Decrees,"
- "Paint: How, Why and When."

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71 Broadway - New York.

We do not grind zinc in oil. List of manufacturers of zinc white paints will be furnished on request.

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THE WORLD

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Two new composite-observation cars have just been placed in service on The Overland Limited between Chicago and Omaha, by the

Chicago, Milwaukee and St. Paul Railway

The Overland Limited leaves Union Passenger Station, Chicago, 6.05 p. m. Arrives Omaha 7.35 a. m., and Denver 10.00 p. m. the next day, and San Francisco the third day in time for dinner.

A. J. TAYLOR,

Canadian Passenger Agent,
8 King St. E., Toronto, Ont.

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CHAS. E. MARKHAM, G.P.A.
BUFFALO, N.Y.

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— Boilers, Engines, Steam Shovels, etc. —

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TEMPLE BUILDING — TORONTO

and the third the local metallic line to Springhill. Other work to be taken in hand during the season includes a through line to Parrsboro, via Southampton; a direct metallic line from Amherst to Pictou; and the reconstruction of the line to Pugwash. Negotiations are in progress with the New Brunswick Telephone Co. for the construction of a through line to Moncton, N.B.

The Bell Telephone Co., according to a statement presented by C. F. Sise, President, to the Parliamentary Committee now sitting at Ottawa, holds shares in other telephone and allied companies in Canada as follows:—

	No. of Shares.	Value.
Telephone Company of P.E.I.	369	\$ 8,725
New Brunswick Telephone Co.	1,599	79,950
Nova Scotia Telephone Co.	6,975	69,750
Federal Telephone Co.	1,879	28,185
North American Telegraph and Telephone Co.	2,000	200,000
Northern Electric and Manufacturing Co.	2,790	279,000
The Wire and Cable Co.	2,600	260,000

The Temiskaming Telephone Co. has been incorporated under the Ontario Companies' Act, with a capital of \$25,000, and offices at New Liskeard, Ont., to carry on a general telephone business there and in the district of Nipissing. The provisional directors are: T. McCamus, F. S. Brickenden, W. J. Middleton, W. Hugh, Rev. J. J. Sparling, D. Stewart, D. T. K. McEwen, New Liskeard. The commissioners of the Temiskaming and Northern Ontario Ry. propose to construct a telephone line along the railway from North Bay to New Liskeard, which will afford long distance connection for the Temiskaming Telephone Co., and for the Haileybury and Cobalt Telephone Co.

The Bell Telephone Co. has completed long distance lines as follows:—Eastern Department—Montreal to Ottawa; St. Anne de la Perade to St. Prosper; Ottawa to Alexandria; Lachine to Pointe Claire; Actonvale to Richmond; Richmond to Windsor Mills; Montebello to Papineauville. It is proposed to open offices at St. Prosper and Papineauville, Que., and Eastman's Springs, Ont. Ontario Department—Chatham to Blenheim; London to Chatham; Toronto to Galt; Hamilton to Jarvis; Toronto to Bowmanville; Toronto to King Jct.; Toronto to Hamilton; Hamilton to Brantford. Northwest Department—Carberry to Brandon; Winnipeg to Portage la Prairie; Morden to Pilot Mound. The following long distance lines are to be constructed during the current season, work on some of them having been already started. Eastern Department—Nicolet to Doucet's Landing; Three Rivers to Doucet's Landing; Arnprior to Quyon; St. Tite to St. Thecle; Three Rivers to St. Stanislas; Shanley to Spencerville; Montreal to St. Jerome; Lorette to Cap Sante; Ottawa to North Wakefield. Ontario Department—Toronto to Georgetown; Bradford Jct. to Collingwood; Barrie to Orillia; Bracebridge to Huntsville; Toronto to Brampton; Ripley to Bervie; Dutton to Wallacetown; St. Thomas to Sheddin; Drayton to Palmerston; Hamilton to St. Catharines. Northwest Department—Brandon to Rapid City; Killarney to Deloraine; Lacombe to Bentley; Regina to Lumsden; Winnipeg to Wawanesa; Winnipeg to Carman; Brandon to Moosomin.

The Standard Inspection Bureau has been incorporated under the Ontario Companies' Act with a capital of \$40,000 and offices at Toronto, "to carry on the business in all their branches of civil, mechanical and electrical engineers, analysts, surveyors, examiners and inspectors." J. Galt, C.E., is President; A. L. Reading, Manager; T. C. Irving, Jr., Secretary; the other director being H. E. Redman. The Bureau has opened offices at 23 Toronto St.

PURCHASING AGENTS' GUIDE.

(Continued from third page of cover.)

Car Ranges

Geo. R. Prowse.....Montreal.

Car Wheels

Jas. W. Pyke & Co.....Montreal.
Rhodes, Curry & Co.....Amherst, N.S.
Standard Steel Works.....Philadelphia, Pa.

Castings

Crossen Car Mfg. Co.....Cobourg, Ont.

Castings (Steel)

W. Kennedy & Sons, Ltd.....Owen Sound, Ont.
Montreal Steel Works.....Montreal.
Rhodes, Curry & Co.....Amherst, N.S.

Cast-Steel Hammers

American Brake Shoe & F'dry Co.....Mahwah, N.J.

Cast-Steel Track Tools

American Brake Shoe & F'dry Co.....Mahwah, N.J.

Cast-Steel Wrenches

American Brake Shoe & F'dry Co.....Mahwah, N.J.

Cement

Thorn Cement Co.....Buffalo, N.Y.

Cement Machinery

Jas. W. Pyke & Co.....Montreal.

Coal Haulage Ropes

The B. Greening Co.....Hamilton, Ont.

Concrete

Thorn Cement Co.....Buffalo, N.Y.

Concrete Mixers and Rock Crushers

F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Conduit Contractors

F. T. Ley & Co.....Springfield, Mass.

Contractors

F. T. Ley & Co.....Springfield, Mass.

Contractors' Plant

F. H. Hopkins & Co.....Montreal.
The W. H. Kelson Co.....Montreal.
T. A. Morrison & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Contractors' Supplies

J. A. Dawson & Co.....Montreal.

Cooking Apparatus

Geo. R. Prowse.....Montreal.

Copperware

Geo. R. Prowse.....Montreal.

Corrugated Furnaces

Continental Iron Works.....Brooklyn, N.Y.

Cross Arms, Top Pins and Side Blocks

Canadian General Electric Co.....Toronto.
The Firstbrook Box Co.....Toronto.

Cross Arm Braces

Canadian General Electric Co.....Toronto.
Toronto Bolt and Forging Co.....Toronto.

Crossing Gates

General Railway Signal Co.....Buffalo, N.Y.
The N. L. Piper Railway Supply Co.....Toronto.

Crowbars

Toronto Bolt and Forging Co.....Toronto.

Culvert Pipe (Cast Iron)

Gartshore-Thompson Pipe & F'dry Co.....Hamilton.

Cuts

Acton Burrows Co.....Toronto.

Derrick Ropes

Dominion Wire Rope Co.....Montreal.
The B. Greening Co.....Hamilton, Ont.

Derricks

F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Diving Outfits

W. H. C. Mussen & Co.....Montreal.

Door Signs

Acton Burrows Co.....Toronto.

Drawing Materials

Eugene Dietzgen Co.....New York.
James Foster.....Toronto.

Drilling Machines

The John Bertram & Sons Co.....Dundas, Ont.

Drills

W. Abbott.....Montreal.

Dry Goods

The Hudson's Bay Co.....

Dynamo and Electric Castings

American Brake Shoe & F'dry Co.....Mahwah, N.J.

Economizers

Babcock & Wilcox (Ltd.).....Montreal.

Electric Car Fenders

The G. B. Meadows Wire, etc., Co.....Toronto.

Electric Car Route Signs

Acton Burrows Co.....Toronto.

Electric Car Wire Guards

The G. B. Meadows Wire, etc., Co.....Toronto.

Electric Cranes

Canada Foundry Co.....Toronto.
Dominion Bridge Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Electric Ry. Brake Shoes

American Brake Shoe & F'dry Co.....Mahwah, N.J.

Electric Railway Builders

F. T. Ley & Co.....Springfield, Mass.

Electric Ry. Supplies

J. A. Dawson & Co.....Montreal.

Electric Supplies

J. A. Dawson & Co.....Montreal.

Enameled Iron Signs

Acton Burrows Co.....Toronto.

Engineers' Supplies

The Canadian Rubber Co. of Montreal.
Williams & Wilson.....Montreal.

Engines, Automatic

Robb Engineering Co.....Amherst, N.S.

Engines, Corliss

Robb Engineering Co.....Amherst, N.S.

Engines, Stationary and Marine

Canada Foundry Co.....Toronto.
H. W. Petrie.....Toronto.
Polson Iron Works.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Engines, Steam

Erie Heating Co.....Chicago, Ill.
Williams & Wilson.....Montreal.

Engraving

Rolph & Clark (Ltd.).....Toronto.
Toronto Engraving Co.....Toronto.

Engraving (Copper and Steelplate)

Rolph & Clark (Ltd.).....Toronto.

Express Office Signs

Acton Burrows Co.....Toronto.

Feedwater Heaters

Babcock & Wilcox (Ltd.).....Montreal.
H. W. Petrie.....Toronto.
Robb Engineering Co.....Amherst, N.S.
Williams & Wilson.....Montreal.

Fencing

Canada Foundry Co.....Toronto.
Canadian Steel and Wire Co.....Hamilton, Ont.
Cyclone Woven Wire Fence Co.....Toronto.
Owen Sound Wire Fence Co.....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.

Fire Brick

Garden Sand Co.....Chicago, Ill.
W. H. C. Mussen & Co.....Montreal.

Fire Escapes

The G. B. Meadows Wire, etc., Co.....Toronto.

Fire Insurance

Dale & Co.....Montreal.

Flags

The Hudson's Bay Co.....

Flour

The Hudson's Bay Co.....

Forgings

Crossen Car Mfg. Co.....Cobourg, Ont.
General Railway Signal Co.....Buffalo, N.Y.
Standard Steel Works.....Philadelphia, Pa.

Gas Pipe (Cast Iron)

Gartshore-Thompson Pipe & F'dry Co., Hamilton

Gates

Canada Foundry Co.....Toronto.
Cyclone Woven Wire Fence Co.....Toronto.
Owen Sound Wire Fence Co.....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.

Gears (Heavy)

W. Kennedy & Sons (Ltd.).....Owen Sound, Ont.

Grain Elevators

John S. Metcalfe Co.....Chicago, Ill.

Groceries

The Hudson's Bay Company.....

Handcars

Crossen Car Mfg. Co.....Cobourg, Ont.
W. H. C. Mussen & Co.....Montreal.

Hardware

The Hudson's Bay Company.....

Headlights

N. L. Piper Railway Supply Co.....Toronto.

Headlinings

Crossen Car Mfg. Co.....Cobourg, Ont.

Heaters

Erie Heating Co.....Chicago, Ill.

Heating for Power Plants

Erie Heating Co.....Chicago, Ill.

Hose, Air Brake and Steam

The Canadian Rubber Co. of Montreal.

Hose, Fire

The Canadian Rubber Co. of Montreal.

Hose, Suction

The Canadian Rubber Co. of Montreal.

Illustrations

Acton Burrows Co.....Toronto.

(Continued on page 279.)

JOHN DONNELLY, President

H. B. FOLGER, Treasurer

THOS. DONNELLY, Secretary

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WINNIPEG

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LIMITED.****CROSS ARMS, TOP PINS,
AND SIDE BLOCKS,**

TORONTO.

PURCHASING AGENTS' GUIDE.

(Continued from page 277.)

Inspection

R. W. Hunt & Co. Montreal.
H. Jarvis & Co. Chicago, Ill.
Standard Inspection Bureau. Toronto.

Instruments, Surveying and Engineering

Eugene Dietzen Co. New York.
James Foster. Toronto.

Insurance (Fire and Marine)

Dale & Co. Montreal.

Interlocking and Signalling

General Railway Signal Co. Buffalo, N.Y.

Interlocking Signals

Montreal Steel Works. Montreal.

Iron Fencing

The G. B. Meadows Wire, etc., Co. Toronto.

Iron and Steel Castings

American Brake Shoe & F'dry Co. Mahwah, N.J.

Iron Signs

Acton Burrows Co. Toronto.

Japans

McCaskill, Dougall & Co. Montreal.

Journal Bearings

Canada Foundry Co. Toronto.
Crossen Car Mfg. Co. Cobourg, Ont.
Jas. W. Pyke & Co. Montreal.
St. Thomas Brass Co. St. Thomas, Ont.

Lager Beer, &c.

E. L. Drewry. Winnipeg.

Lamps, Incandescent

Canadian Westinghouse Co. Hamilton, Ont.

Lamps and Lanterns

The Hudson's Bay Company.
N. L. Piper Railway Supply Co. Toronto.

Lathes

The John Bertram Sons Co. Dundas, Ont.
H. W. Petrie. Toronto.
Williams & Wilson. Montreal.

Launches

Polson Iron Works. Toronto.

Lights, Contractors' and Wrecking

F. H. Hopkins & Co. Montreal.
W. H. C. Mussen & Co. Montreal.

Lithographing

Rolph & Clark (Ltd.). Toronto.

Locomotive Boiler Washer, Automatic

Erie Heating Co. Chicago, Ill.

Locomotive Driver Brake Shoe

American Brake Shoe & F'dry Co. Mahwah, N.J.

Locomotives (Compressed Air)

Baldwin Locomotive Works. Philadelphia, Pa.
Locomotive and Machine Co. of Montreal.

Locomotives (Electric)

Baldwin Locomotive Works. Philadelphia, Pa.
Canada Foundry Co. Toronto.
Locomotive and Machine Co. of Montreal.

Locomotives (Logging)

Lima Locomotive and Machine Co. Lima, Ohio.

Locomotives (Rack)

Baldwin Locomotive Works. Philadelphia, Pa.
Locomotive and Machine Co. of Montreal.

Locomotives (Steam)

Baldwin Locomotive Works. Philadelphia, Pa.
Canada Foundry Co. Toronto.
Canadian Locomotive Co. Kingston, Ont.
F. M. Hicks & Co. Chicago, Ill.
F. H. Hopkins & Co. Montreal.
The W. H. Kelson Co. Montreal.
Lima Locomotive and Machine Co. Lima, Ohio.
Locomotive and Machine Co. of Montreal.

Locomotive Stack Netting

The G. B. Meadows Wire, etc., Co. Toronto.

Locomotive Tile

Garden City Sand Co. Chicago, Ill.

Machine Tools

W. Abbott. Montreal.
H. W. Petrie. Toronto.
Williams & Wilson. Montreal.

Machine Screws, Set Cap and Planer

John Morrow Machine Screw Co. Ingersoll.

Machinery, Marine

Sheriffs Mfg. Co. Milwaukee, Wis.

Machinery Repairs, Marine

Sheriffs Mfg. Co. Milwaukee, Wis.

Manganese Steel Castings

Montreal Steel Works. Montreal.

Manhole Frames and Covers

American Brake Shoe & F'dry Co. Mahwah, N.J.

Maps

Rolph & Clark (Ltd.). Toronto.

Marine Insurance

Dale & Co. Montreal.

Mats and Matting

The Canadian Rubber Co. of Montreal.

Mechanical Draft Fans

Babcock & Wilcox (Ltd.). Montreal.

Milepost Numbers

Acton Burrows Co. Toronto.

Milling Cutters

W. Abbott. Montreal.
Williams & Wilson. Montreal.

Milling Machines

The John Bertram Sons Co. Dundas, Ont.
H. W. Petrie. Toronto.

Mills, Boring and Turning

The John Bertram Sons Co. Dundas, Ont.
H. W. Petrie. Toronto.

Mill Tools and Supplies

J. A. Dawson & Co. Montreal.

Moulding Sand

Garden City Sand Co. Chicago, Ill.

Nickel

The Orford Copper Co. New York.

Nickel for Nickel Steel

The Orford Copper Co. New York.

Numbers

Acton Burrows Co. Toronto.

Nuts, Cold Pressed

John Morrow Machine Screw Co. Ingersoll.

Nuts, Square and Hexagon

Canada Foundry Co. Toronto.
Toronto Bolt and Forging Co. Toronto.

Oakum

The Hudson's Bay Company.

Office Desks

Canadian Office & School Furniture Co., Preston, Ont.

Office Fittings

Canadian Office & School Furniture Co., Preston, Ont.

Office Railings

The G. B. Meadows Wire, etc., Co. Toronto.

Office Signs

Acton Burrows Co. Toronto.

Oils

Galena Signal Oil Co., Franklin, Pa., and Toronto.

Packing

The N. L. Piper Railway Supply Co. Toronto.
Williams & Wilson. Montreal.

Packing, High Pressure Sheet

The Canadian Rubber Co. of Montreal.

Packing, Piston

The Canadian Rubber Co. of Montreal.

Paints, Acid Proof and Anti-rust

American Asphaltum & Rubber Co. Chicago, Ill.

Paints, Asphaltum

American Asphaltum & Rubber Co. Chicago, Ill.

Paints, Bridge

American Asphaltum & Rubber Co. Chicago, Ill.

Paints, Locomotive Front end

American Asphaltum & Rubber Co. Chicago, Ill.

Paints, Mineral Rubber

American Asphaltum & Rubber Co. Chicago, Ill.

Paints, Structural Iron

American Asphaltum & Rubber Co. Chicago, Ill.

Pinch Bars

The N. L. Piper Railway Supply Co. Toronto.

Pipe

Erie Heating Co. Chicago, Ill.

Pipe and Pipe Coverings

W. C. Baker. New York.

Pipe Covering

Mica Boiler Covering Co. Montreal.

Planers

The John Bertram Sons Co. Dundas, Ont.
H. W. Petrie. Toronto.

Ploughs, Contractors'

W. H. C. Mussen & Co. Montreal.

Porter

E. L. Drewry. Winnipeg.

Portable Boilers

Babcock & Wilcox (Ltd.). Montreal.
Canada Foundry Co. Toronto.
Robb Engineering Co. Amherst, N.S.

Portland Cement

Thorn Cement Co. Buffalo, N.Y.

Power Plants, Contractors'

Erie Heating Co. Chicago, Ill.

Printing

The Hunter, Rose Co. Toronto.
The Mail Job Printing Company. Toronto.

Propeller Wheels

W. Kennedy & Sons (Ltd.). Owen Sound, Ont.
Sheriffs Manufacturing Co. Milwaukee, Wis.

Pumps

Canada Foundry Co. Toronto.
Erie Heating Co. Chicago, Ill.

Punches

F. J. Myers Mfg. Co. Hamilton, Ohio.

Punching and Shearing Machines

The John Bertram Sons Co. Dundas, Ont.

Rail Benders, Roller

Montreal Steel Works. Montreal.

Rails (new)

Drummond, McCall & Co. Montreal.
F. H. Hopkins & Co. Montreal.
J. J. Gartshore. Toronto.

Rails (for relaying)

F. H. Hopkins & Co. Montreal.
J. J. Gartshore. Toronto.
T. A. Morrison & Co. Montreal.
W. H. C. Mussen & Co. Montreal.
Jas. W. Pyke & Co. Montreal.

Railway Equipment

F. M. Hicks & Co. Chicago, Ill.

Railway Interlocking

General Railway Signal Co. Buffalo, N.Y.

Railway Pile Drivers

W. H. C. Mussen & Co. Montreal.

Railway Signalling

General Railway Signal Co. Buffalo, N.Y.

Railway Supplies

J. A. Dawson & Co. Montreal.
The W. H. Kelson Co. Montreal.
The N. L. Piper Railway Supply Co. Toronto.

Reamers

W. Abbott. Montreal.

Refrigerators

Geo. R. Prowse. Montreal.

Ribbons and Carbon Paper

United Typewriter Co. Toronto.

Rivets, Boiler and Bridge

Canada Foundry Co. Toronto.
Toronto Bolt and Forging Co. Toronto.

Rolled Wheels

Standard Steel Works. Philadelphia, Pa.

Rolls, Plate Bending

The John Bertram Sons Co. Dundas, Ont.

Roof Trusses

Canada Foundry Co. Toronto.
Dominion Bridge Co. Montreal.

Roofing Composition

American Asphaltum & Rubber Co. Chicago, Ill.

Roofing Pitch

American Asphaltum & Rubber Co. Chicago, Ill.

Roofing, Ready

American Asphaltum & Rubber Co. Chicago, Ill.

Roofs, Car

American Asphaltum & Rubber Co. Chicago, Ill.

Rope

The Hudson's Bay Co.

Rotary Snow Ploughs

Crossen Car Mfg. Co. Cobourg, Ont.

Rubber Tiling, Interlocking

The Canadian Rubber Co. of Montreal.

Sand, White

Garden City Sand Co. Chicago, Ill.

Saw Steel

Montreal Steel Works. Montreal.

Scrapers (Wheel and Drag)

W. H. C. Mussen & Co. Montreal.

Screws, Coach and Log

Toronto Bolt and Forging Co. Toronto.

Semaphore Arms

Acton Burrows Co. Toronto.

Semaphores

The N. L. Piper Railway Supply Co. Toronto.

Sewer Pipe (Cast Iron)

Gartshore-Thompson Pipe & F'dry Co. Hamilton.

Shaking Grates

Babcock & Wilcox (Ltd.). Montreal.

Shaping Machines

The John Bertram Sons Co. Dundas, Ont.

Ship Lamps

The N. L. Piper Railway Supply Co. Toronto.

Ships

Canadian Shipbuilding Co. Toronto.
Polson Iron Works. Toronto.

Shovels

F. H. Hopkins & Co. Montreal.
The Hudson's Bay Co.

Slide Bearings

Simplex Railway Appliance Co. Montreal.

Signal House Numbers

Acton Burrows Co. Toronto.

Signals

General Railway Signal Co. Buffalo, N.Y.
N. L. Piper Railway Supply Co. Toronto.

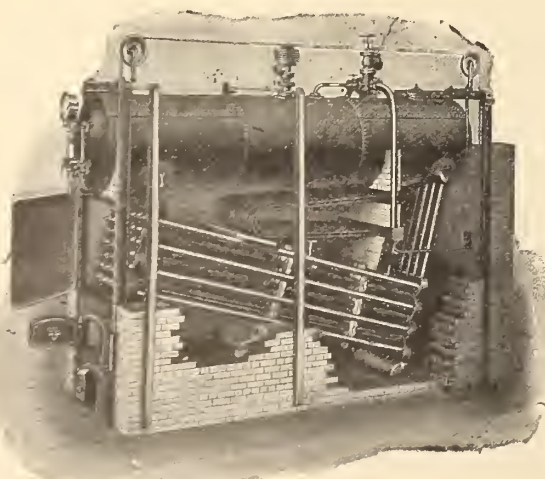
Signs

Acton Burrows Co. Toronto.

Slack Adjusters

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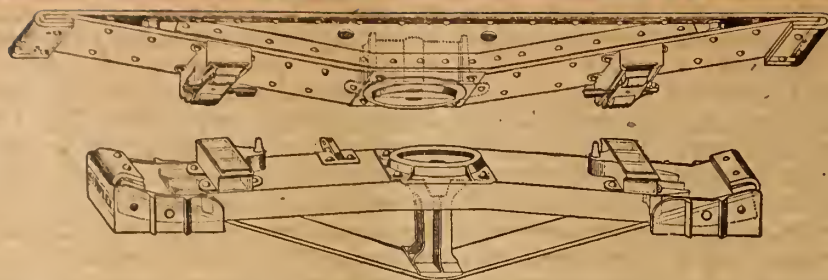
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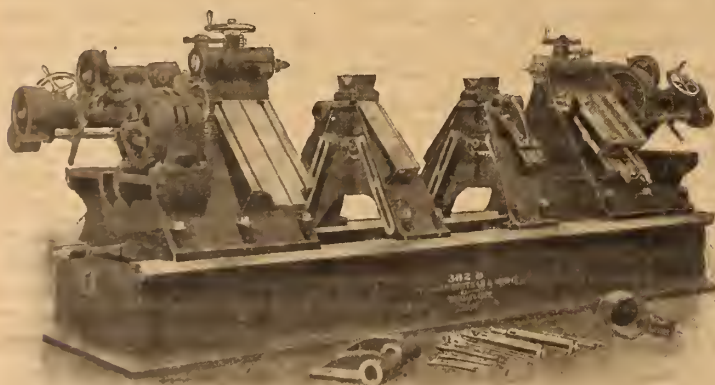
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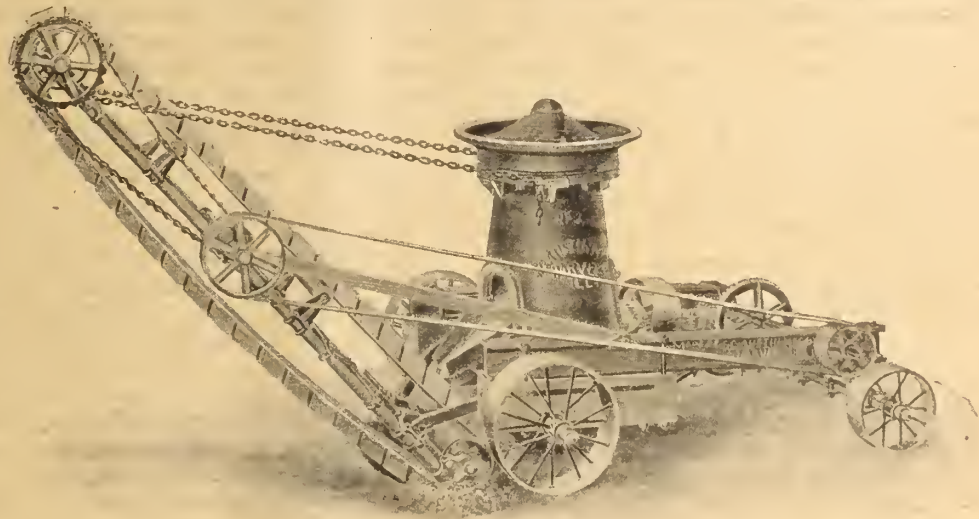
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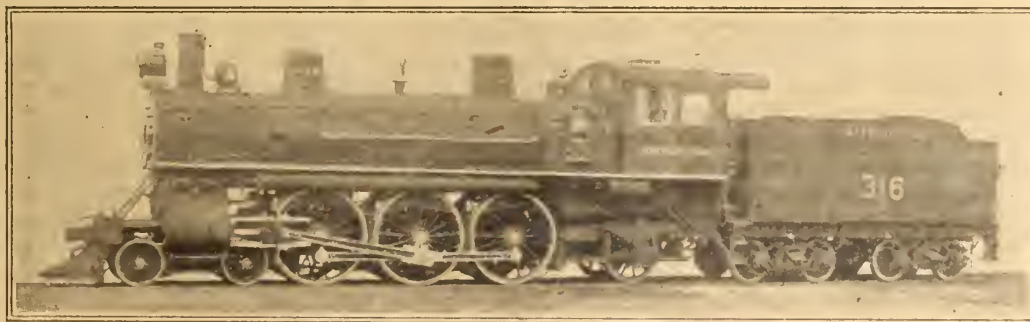
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RAILWAY DEVELOPMENT.

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Algoma Central and Hudson Bay Ry.—An act was passed at the last session of the Ontario Legislature, authorizing the Lieut.-Governor-in-Council to adjust a question in connection with the land grant to the company. By an old act certain lands had been exempted from being granted for railway aid, but some portions had been taken by the company and improved. The present act will enable the Government to arrange this difficulty. (June, pg. 241.)

Bessemer and Barry's Bay Ry.—The Ontario Government decided not to ask the Legislature to vote any subsidies for railway construction at the recent session. We were informed May 25 that the management had been informed that it would be aided by way of loan, to put the line through. To what extent, or just in what way this help will be given, has not been announced. The mortgage and bonds approved of at the meeting of shareholders May 23, are in process of execution. (June, pg. 241.)

Brandon, Saskatchewan and Hudson's Bay Ry.—Application is being made at the current session of the Dominion Parliament for an act extending the time for the construction of this projected railway from the International boundary between ranges 23 and 25 west of the principal meridian to Brandon, Man., thence to Pas Mission. (Sept., 1903, pg. 305.)

Canada Atlantic Ry.—The question of the construction of a subway at Bank St., Ottawa, at the joint cost of the C.A.R. and the Ottawa Electric Ry., is before the Railway Commissioners. The application is being made by the Ottawa City Council. The Commissioners have heard the evidence and the arguments, and it is expected that a special engineering report will be obtained before judgment is given.

Detroit River Tunnel.—The Michigan Central Rd., and its Canadian subsidiary—the Canada Southern Ry.—are organizing companies, one in Michigan and the other in Canada, for the construction and operation of a tunnel under the Detroit River, between Detroit, Mich., and Sandwich, Ont. The tunnel will have its Detroit outlet between 17th and 18th streets, and the Canadian outlet near L'Assomption Roman Catholic Church, Sandwich, and new tracks will be built on either side of the river to connect it with the present tracks. There will be a full wide curve at each end of the tunnel as it leaves the river extending along the shore to accommodate the new tracks. Including the curves the tunnel will be two miles long. Really there will be two tun-

nels, each having a single track, constructed parallel, but separated by a distance of about 35 ft. The tunnels will run almost straight across the river; topographically it will be 10° south of east. The work will be done from the Sandwich end, and it is expected will occupy about two years to complete. Nothing will be done at the Detroit end until the tunnel is completed. The boring of the tunnels will be done by the hydraulic pressure system, and electricity will be used as much as possible. Each tunnel will contain a single

that as soon as that line reached Edmonton work would be gone on with on this line to the coast.

Great Northern Ry. of Canada.—The Quebec Board of Trade has been endeavoring to ascertain when the company proposes rebuilding its shops in that city. The shops were located in the city as a principal consideration for a bonus of \$200,000; and they were burned down about two years ago. An official stated that the shops would be rebuilt, but it was impossible to give the exact date when the work would be taken in hand. (June, pg. 243.)

Great Northern Ry. (U.S.).—The contract for the construction of the line from Oroville, Wash., to Princeton, B.C., has been let to Sims and Shields, of St. Paul, Minn., who have let a number of sub-contracts. The total distance is 86 miles. A line is also contemplated to Oroville, either from Midway or Republic, Wash. From Midway the line would be 45 miles long, with 2½% gradients, while from Republic it would be 65 miles with a maximum gradient of 1%. (See also Vancouver, Victoria and Eastern Ry.

Guelph and Goderich Ry.—P. A. Petersen, Chief Engineer in charge of construction, made a trip of inspection recently, and states that the work will be completed according to contract in Oct. The plans of the location of the line in Goderich, and of certain deviations from the previous locations at Blyth, and some other points in Huron county, have been filed.

Haliburton, Whitney and Mattawa Ry.—The Ontario Legislature at its last session passed an act extending the time for the construction of this projected line from Haliburton to Mattawa, Ont.

Halifax and South-Western Ry.—We were advised June 14, that about 80% of the grading had been completed between Sable River and Shelburne, N.S. Grading had been commenced at Liverpool, and west of Shelburne, between which place and Barrington there were over 600 men at work. The route between Liverpool and Sable River has been finally agreed upon, and the location survey is being pushed ahead. The route follows the coast, passing through Port Matoun, and then runs inland to the boundary of Queen and Shelburne counties. From Shelburne the coast is practically followed to Port Clyde, thence the line will follow a straight route to Barrington, where a junction will be made with the Halifax and Yarmouth Ry., recently taken over by the H. and S.W.R. On the section between Liverpool and Bridgewater, about one-third of the ballasting had been completed, and was being gone on with. On the Middleton and Victoria Beach section,



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track, and there will be a sidewalk running through them. The trains will be hauled by electric locomotives, the third rail system being used. The power plant will be located on the Detroit side of the river. The estimated cost is \$10,000,000, and the work is expected to be commenced about Oct. 1. (See Detroit River Bridge, June, pg. 241.)

Edmonton, Yukon and Pacific Ry.—When the company's application for an extension of time for the construction of the line was before the Senate Committee of the Dominion Parliament June 9, W. H. Moore, Secretary of the Canadian Northern Ry., stated

(Continued on page 285.)

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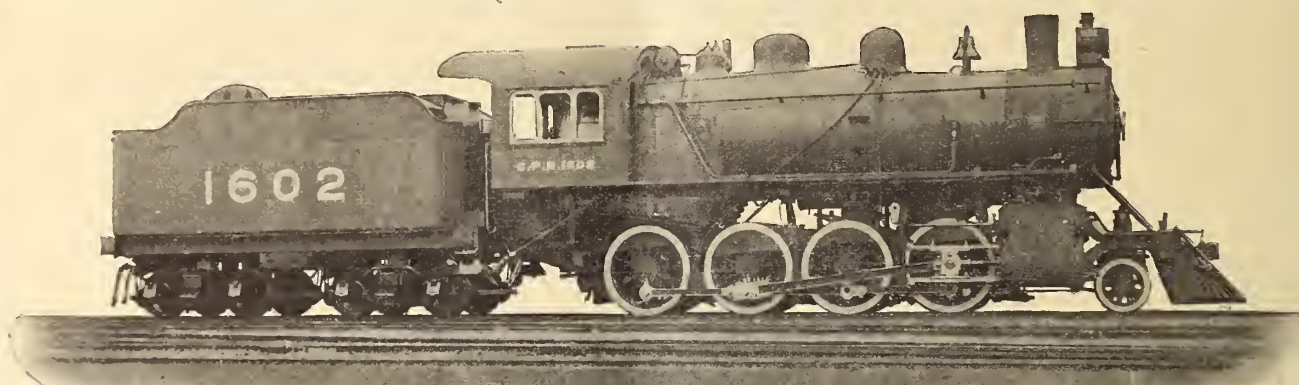
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RAILWAY DEVELOPMENT.

(Continued from page 281.)

track had, on June 14, been laid from Middleton to about 8 miles from the terminus which it is proposed to make inside Annapolis Basin. Tracklaying was expected to be completed by the end of June. The telegraph line, fencing, station buildings and water tanks are being built as fast as possible. It is expected to have the line completed this year. (June, pg. 243.)

Intercolonial Ry.—The following additional amounts have been voted by the Dominion Parliament for betterments—Improved accommodation and facilities along the line, \$29,600; additional sidings, \$26,100; eliminating two road crossings at rail level near Dorchester, N.B., \$2,000.

A contract has been let for 25,000 tons of Canadian steel rails to be delivered during the current year.

Tenders are under consideration for a freight shed at Windsor, N.S., for the substructure of a double-track bridge at Bedford, N.S., and for substructures for bridges at Mitchell and St. Leonards Jct., Que.

The new tracks at the lower yard at St. John, N.B., have been laid and ballasting is being proceeded with.

The freight shed at pier 9, Halifax, N.S., has been completed and was used for receiving cargoes from steamers at the end of May.

In connection with the new station at Pictou, N.S., which is now nearly completed, a wharf is to be erected to run parallel with the freight shed. It will be 150 ft. east of the present wharf, and will be about 725 ft. long at the longest point, and 80 ft. wide at the outer end. The materials to be used are creosoted pine piles, hard pine timbers and 4 inch spruce plank floor. There will be four tracks on the wharf, which will be used for discharging full cargoes either to or from vessels. There will be about 10,000 cubic yards of dredging to do before the water alongside the new wharf will be of sufficient depth to accommodate the size of vessels usually berthed at the port. (June, pg. 243.)

Irondale, Baneroff and Ottawa Ry.—An extension of time was granted at the last session of the Ontario Legislature for the construction of the authorized extension from the present terminus at Bird's Creek easterly. Authority was also given to construct an extension from the present terminus at the junction with the G.T.R. near Kinmount, Ont., westerly to Georgian Bay.

James Bay Ry.—Nothing has been announced as to the route of the line through Orillia, Ont., but it is not expected that any difficulties will be met with now that the taxpayers have carried the by-law voting \$30,000 as a bonus. Toronto City Council has given notice of opposition to the company's application to the Railway Commissioners for a right of way along the Don River, and extending north of the G.T.R. tracks, and along Esplanade St. The contractors have construction trains running from Parry Sound to south of Falding, some 10 miles south of the Canada Atlantic Ry. (June, pg. 243.)

The Kingston, Smith's Falls and Ottawa Ry. Co. was incorporated by the Dominion Parliament in 1887, and the time for the construction of the line authorized was extended in 1889, 1891, 1896, and again at the current session of the Dominion Parliament. By the present extension the line is to be commenced by July 1, 1907, and completed in three years thereafter. C. F. Gildersleeve, one of the promoters, stated recently that it was anticipated the charter would be taken over by the G.T.R., with a view of providing a Toronto-Ottawa route.

Lake Superior, Long Lake and Albany River Ry.—Plans of the location survey of the first 12 miles of this projected railway from Peninsula Harbor, on Lake Superior, towards Albany River, have been filed with the Ontario Department of Public Works. (June, pg. 243.)

Manitoulin and Iron Range Ry.—W. H. Hearst, J. McKay, J. Miller, J. L. Darling, of Sault Ste. Marie, Ont.; J. Stobie, of Johnston township, Algoma, Ont., were incorporated last session of the Ontario Legislature under this title, for the purpose of constructing a railway from Hutton township, Nipissing district, southerly and westerly to Lake Huron, near the boundary of Humbolt township. The capital is fixed at \$500,000, with power to increase, and bonds to the extent of \$20,000 a mile may be issued. The offices of the company are to be at Sault Ste. Marie, Ont.

New Brunswick Coal and Ry. Co.—Hon. G. G. King and G. McAvity, the commissioners appointed by the New Brunswick Government, have made an inspection of the line, and presented a report to the Government. The report points out the necessity of certain expenditure on the line and its equipment, and it is stated that the acceptance of the office of commissioners by the persons named depends upon the action of Government on their report. A press report is to the effect that the Eastern Division of the Grand Trunk Pacific Ry. will pass through Chipman, where a junction will be effected with this line. (Dec., 1904, pg. 429.)

New Brunswick Southern Ry.—A Press report states that the surveys for the proposed line to New River Beach have been completed at the beach end, and are now going on at St. Stephen. A satisfactory route with easy gradients has been found, the heaviest grade being near Pocologan. (Mar., pg. 94.)

New Ontario Ry.—The Ontario Legislature granted, at its last session, an extension of time for the construction of this projected line from Dryden to Lac Seul, Ont., for seven years from May 1, 1905. (April, pg. 145.)

Nicola, Kamloops and Similkameen Ry.—A contract has been let to C. E. Loss, of New York, for the construction of a line from Spence's Bridge, on the C.P.R. transcontinental line, to Nicola Lake, B.C., 45 miles. Jas. Macdonnell, of Montreal, is associated with C. E. Loss, and is in charge of the construction work. A start was made June 15, and we are advised that it is expected to have the line completed about the end of June, 1906. The work to be done is quite heavy, consisting of rock and earth excavation, tunnelling and concrete construction. It is intended to construct the road in a first-class manner in all respects with a grade not exceeding 1% at any point. C. S. Gzowski, jr., Toronto, is engineer in charge for the company, and H. J. Cambie will represent the C.P.R., which will operate the line under a lease. B.C. press reports state that L. M. Rice is acting as contractors' engineer, and that J. G. McLean & Co., of Vancouver, have a contract on the line. (June, pg. 243.)

Penetanguishene and Orillia Ry.—J. McArthur, J. Goldthorpe, C. L. Wilson, H. C. Moore, L. W. Mitchell, of Toronto, were incorporated by an act passed last session of the Ontario Legislature under this title, with power to construct a railway from Penetanguishene, through the townships of Tiny, Medonte, North Orillia, South Orillia, and the town of Orillia, to Brechin or Udney, Ont. The capital is \$500,000, and bonds to the extent of \$30,000 a mile may be issued. The offices of the company are to be in Toronto, and the line is to be completed in six years. The company is authorized to enter into agreements with the G.T.R., the C.P.R.,

the James Bay Ry., or any other railway crossing its tracks. (April, pg. 145.)

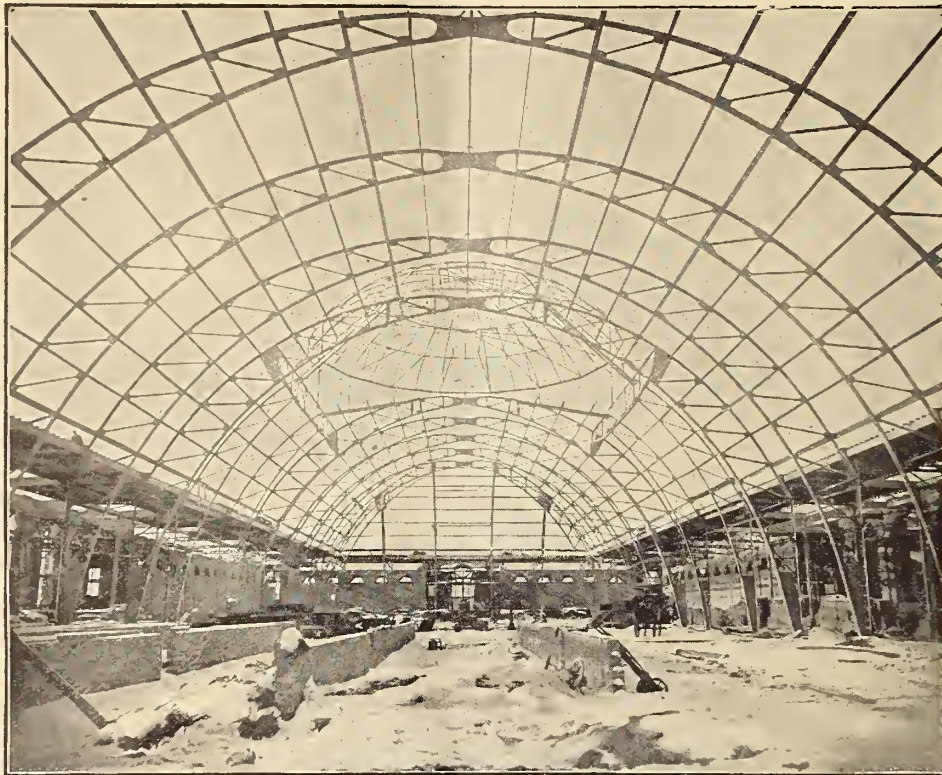
Prince Edward Island Ry.—The House of Commons has granted supplies for the following additional improvements on the line: house for agent at Bloomfield, \$715; house for agent at Misouche, \$560; station at St. Theresa, \$100; extension of railway track along the water front at Charlottetown, \$7,150.

A recent visit of W. B. Mackenzie, Chief Engineer of the Government railways, Moncton, N.B., was reported to be in connection with the starting of surveys for a line from O'Leary to West Cape, 12 miles, and a line from Kensington to Stanley Bridge. (June, pg. 243.)

Quebec Bridge and Ry. Co.—The grading is being gone on with on the 6½ miles from the north end of the bridge into the city of Quebec. The terminals will be at the Champ-plain market, right below the Chateau Frontenac. The gradient on this line from tide-water to the north end of the bridge will be a little in excess of 1%. It is expected that a branch line to connect the bridge with the C.P.R. will be gone on with at an early date. The construction of this line is of importance, as it will enable material to be got in for construction from the north end. The Eastern Division of the G.T. Pacific Ry. will also have a connection with the north end of the bridge. M. P. Davis is the contractor, and he also has the contract for the construction of a line about 2½ miles in length to connect the south end of the bridge with the Intercolonial and the G.T.R. near Chaudiere Curve. At this point connection will also be made with the Eastern Division of the G.T. Pacific Ry. A large shunting yard will be laid out here between the I.C.R. and the G.T.R. An important piece of work in connection with this line is the construction of a bridge over the Chaudiere River, about half a mile south of the St. Lawrence. It is a double track steel bridge, the spans from the north side being: span of 182 ft., steel tower span, 40 ft.; span 200 ft.; steel tower on central pier in river; span 200 ft., steel tower span, 40 ft.; span 100 ft. The bridge will be 140 ft. above the river bed. It is expected to have the bridge completed early in July. As soon as the bridge is completed and the track laid the steel for the permanent structure of the bridge over the St. Lawrence can be brought right up to the work. About 20,000 tons of steel for the permanent work of the bridge has been made at the shops, and about 8,000 tons delivered at the site. There have been erected one flanking span at each end of the bridge, and a considerable quantity of the steel falsework for erecting the permanent bridge, working from the south end.

Quebec and Lake St. John Ry.—We were advised June 12, that grading on the La Tuque branch had been completed for six miles and was under way for eight miles more, making 14 miles from La Tuque Junction. The bridges and culverts on the first 10 miles had been completed. Track has been laid for four miles and it was expected to have the first ten miles laid and ballasted by the end of July. The engineers have not yet given up hope of having the track laid to a very short distance from La Tuque falls this season. Work was delayed considerably in the spring, and even early in June the steam shovels had to be stopped in one or two of the cuts on account of frost. The company has issued a booklet descriptive of the country which will be opened up for development by this 10 mile branch. The line passes through large areas of forest land, and touches numerous water powers, the largest of which is La Tuque falls, estimated to furnish 90,000 h.p. As soon as the line is completed it is intended to place a steamer on the St. Maurice River. The route of the

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Eastern Division of the G.T. Pacific Ry., it is understood, has been surveyed through the St. Maurice Valley, and this branch will enable supplies to be taken in and so aid in the pushing of construction.

The first three miles of the Gosford branch have been completed except for the ballasting. It is hoped to locate a further 12 miles on this branch during the current season. (June, pg. 243.)

St. Maurice Valley Ry.—Application is being made at the current session of the Dominion Parliament for an act authorizing the construction of the line from Three Rivers to Shawenegan Falls, Grand Mere, and St. Jean des Piles, and thence to a junction with the Eastern Division of the Grand Trunk Pacific Ry. Power is also asked to enter into agreements with other companies.

Strathroy and Western Counties Ry.—Application was made last session of the Ontario Legislature for an act changing the name of this company to the Hamilton, London and Western Counties Ry., and authorizing the construction of lines to Hamilton. The application was opposed by the promoters of electric lines projected from Hamilton to Guelph, and it was defeated.

Temiskaming and Northern Ontario Ry.—The commissioners have purchased additional property at North Bay, Ont., and are negotiating for the purchase of other lands adjoining, for station and yard purposes. It is not likely that anything will be done in the way of coming to a decision as to the operation of the line or a portion of it by electricity until after the coming winter. (June, pg. 243.)

Toronto, Ottawa and French River Ry.—E. N. Armour, G. W. Beardmore, G. A. Case, H. V. H. Cawthra, J. I. Davidson, of Toronto; F. M. Field, Cobourg, were incorporated last session of the Ontario Legislature under this title, for the purpose of constructing a railway from Toronto to Ottawa, through the counties of York, Ontario, Durham, Northumberland, Hastings, Frontenac, Lanark and Carleton, and from the mouth of the French River to Hawkesbury. The capital of the company is fixed at \$1,000,000, and bonds to the extent of \$50,000 a mile may be issued. The head offices are to be in Toronto, and the line is to be completed within seven years.

Trans-Canada Ry.—The Quebec Legislature at its recent session did not vote any subsidies in aid of railway construction, but it is expected that something will be done in this direction next year. In all probability there will not be any construction done this season.

Upper Arrow Lake to Tete Jaune Cache.—Application will be made next session of the British Columbia Legislature for an act incorporating a company to construct a railway from near Arrowhead, on the Upper Arrow Lake, following the Columbia and Canoe Rivers to the Fraser River at Tete Jaune Cache, with power to construct branch lines not exceeding 20 miles in length, and for other purposes. Harvey, McCarter and Pinkham, Revelstoke, B.C., are solicitors for the promoters.

Vancouver, Victoria and Eastern Ry.—The application of this company for an extension of time for the construction of the line, and for several amendments to its charter, is being made the subject of a fight before the Railway Committee of the Dominion Parliament. The clause in the bill which is causing the discussion, is for the purpose of authorizing the company at such points on the International boundary line between the west bank of the Similkameen River and the Columbia River as is deemed expedient for the purpose of avoiding difficulties in construction, to make connection with any railway in the State of Washington. The company was originally incorporated by the Brit-

ish Columbia Legislature to construct a line easterly from Vancouver through the Similkameen and Kootenay districts, and to provide a ferry connection with Victoria. A Dominion charter was subsequently obtained and the applications of the company for extensions of time have been the subject of considerable discussion in Parliament. The charter is owned by Great Northern Ry. (U.S.) interests, which also own the Washington and Great Northern Ry. Under the charter of these two local companies there has been constructed 73.4 miles of line, extending from Marcus, Wash., to Grand Forks Jct., B.C., 40.3 miles; and from Grand Forks Jct. to Phoenix, 31.1 miles. There is also a line extending from Republic, Wash., to Grand Forks, B.C., 34.6 miles. These lines are operated by the Spokane Falls and Northern Ry., a subsidiary of the G.N.R. (U.S.) The objection urged against the passing of the act is that it is proposed to use a charter, originally intended for a line in Canada, for the purpose of providing a route in and out of Canada, at desirable points, for the purpose of diverting the mineral traffic to U.S. lines; and a statement made in this connection was to the effect that it was never intended to carry the line to Vancouver, but to make the terminal at Everett, Wash. The promoters of the line deny this, and state that the only object in view is to have power to follow the river valleys at one or two points and so avoid having to construct "toboggan slides" over the mountains. The company's map showing the general plan of the proposed route shows a line entirely in Canada from Midway, B.C., touching Osoyoos, Kere-meos, Hedley, Princeton, Tulameen, Huntington, terminating at Cloverdale, with the lines of the Vancouver, Westminster and Northern Ry. Grading has been completed from Curlew to Midway, 15½ miles, and a contract has been let for the construction of a further section of 22 miles between Oroville, Wash., and the International boundary near Midway. (June, pg. 243.)

See also Great Northern Ry., U.S.

Woodstock and Lake Huron Ry.—The application at the current session of the Dominion Parliament for the incorporation of a railway from Woodstock to a point on Lake Huron between Kettle Point and Kincardine, Ont., has been withdrawn.

July Birthdays.

Many happy returns of the day to—

J. H. Black, General Superintendent Temiskaming and Northern Ontario Ry., North Bay, Ont., born near Smith's Falls, Ont., July 8, 1874.

D. E. Blair, Assistant Superintendent Montreal St. Ry., Montreal, born at St. Thomas, Montmagny, Que., July 25, 1877.

D. W. Campbell, ex-General Superintendent of C.P.R. Atlantic Steamships, born at Montreal, July 15, 1860.

D. A. C. Coleman, chief clerk to General Superintendent Central Division C.P.R., Winnipeg, born at Carleton Place, Ont., July 9, 1879.

Geo. Collins, Receiver and Manager Central Ontario Ry., Trenton, Ont., born at Kingston, Ont., July 20, 1860.

D. D'E. Cooper, Canadian Freight Agent, Lehigh Valley Rd., Toronto, born at Buffalo, N.Y., July 8, 1862.

John Corbett, General Foreign Freight Agent C.P.R., Montreal, born in Lanarkshire, Scotland, July 19, 1863.

E. J. Coyle, Assistant General Passenger Agent C.P.R., Vancouver, B.C., born at Stayner, Ont., July 23, 1870.

S. E. Dewey, Travelling Freight Agent, G.T.R., Hamilton, Ont., born at Beckenham, Kent, Eng., July 4, 1879.

J. F. Dolan, City Passenger and Ticket

Agent Richelieu and Ontario Navigation Co., Montreal, born at Kingston, Ont., July 1, 1868.

C. W. Graves, District Freight and Passenger Agent Great Northern Ry. (U.S.), Montreal, born at Waddington, N.Y., July 6, 1864.

W. R. Haldane, District Freight Agent, C.P.R., Detroit, Mich., born at Galashiels, Scotland, July 6, 1867.

J. H. Hanna, ex-Division Freight Agent, G.T.R., at Hamilton, Ont., now at Calgary, Alta., born at London, Ont., July 27, 1867.

R. K. Harris, Chief Engineer, Orford Mountain Ry., Kingsbury, Que., born at Maitland, Ont., July 20, 1866.

A. D. Huff, Commercial Agent, G.T.R., Pittsburg, Pa., born at Chatham, Ont., July 17, 1866.

D. T. Lawrence, Manager National Despatch-Great Eastern Line, Buffalo, N.Y., born at Marysville, Ohio, July 20, 1871.

J. M. Lyons, General Passenger and Ticket Agent, I. C. R., Moncton, N.B., born at Halifax, N.S., July 1, 1850.

T. J. Maguire, Accountant, Quebec Central Ry., Sherbrooke, Que., born at Quebec, July 31, 1860.

C. N. Monsarrat, Engineer of Bridges, C.P.R., Montreal, born there, July 2, 1871.

J. B. Morford, Assistant to General Manager Michigan Central Rd., St. Thomas, Ont., born at Warwick, Orange Co., N.Y., July 16, 1836.

J. E. Quick, General Baggage Agent, G.T.R., Toronto, Ont., born at Richmond, Ontario Co., N.Y., July 10, 1851.

W. C. Ross, Mechanical Foreman, I.C.R., Richmond, N.S., born at Quebec, July 26, 1863.

G. G. Ruel, Assistant Solicitor Canadian Northern Ry., Toronto, born at St. John, N.B., July 5, 1866.

E. G. Russell, ex-Manager Intercolonial Ry. born at St. George, N.B., July 23, 1858.

P. E. Ryan, Secretary Transcontinental Railway Commission, Ottawa, born there, July 26, 1876.

F. W. Snider, Superintendent Atlantic division C.P.R. telegraphs, St. John, N.B., born in Halton Co., Ont., July 14, 1854.

T. Tait, Chairman Board of Railway Commissioners for Victoria, Melbourne, Australia, born at Melbourne, Que., July 24, 1864.

American Railway and Engineering and Maintenance of Way Association.—The Board of Direction for the current year includes W. McNab, engineering department G.T.R., Montreal; and the following representatives associated with railways in Canada are members of committees: J. G. Sullivan, Division Engineer of Construction C.P.R., Winnipeg; L. H. Wheaton, Division Engineer Halifax and South-Western Ry., Shelburne, N.S.; Committee on Roadway; M. P. Cotton, Assistant Engineer C.P.R., Winnipeg, Man.; Committee on Ballasting; T. H. Hickey, Roadmaster Michigan Central Rd., St. Thomas, Ont.; D. MacPherson, Division Engineer C.P.R., Montreal, Committee on Track; F. P. Gutelius, Engineer of Maintenance of Way C.P.R., Montreal, Committee on Signs, Fences, Crossings and Cattleguards; W. S. Kinnear, Assistant General Manager Michigan Central Rd., Detroit (Vice-Chairman); H. A. Woods, Assistant Chief Engineer G.T. Pacific Ry., Montreal, Committee on Records, Reports and Accounts; A. McGill, assistant analyst Inland Revenue, Ottawa (Vice-Chairman), Committee on Water Service; W. McNab, Assistant Engineer G.T.R., Montreal (Chairman); W. F. Tye, Chief Engineer C.P.R., Committee on Economics of Railway Location.

The Alberta Ry. and Irrigation Co. has ordered a 175 horse-power Robb-Mumford boiler from the Robb Engineering Co., Amherst, N.S. This makes eight boilers of this type that the A. R. and I. Co. has purchased during the past few years.

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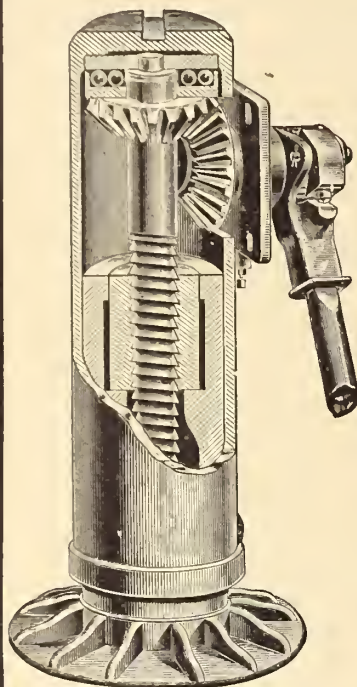
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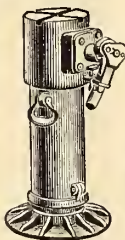
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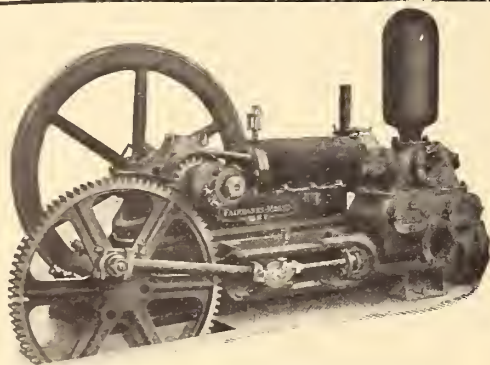
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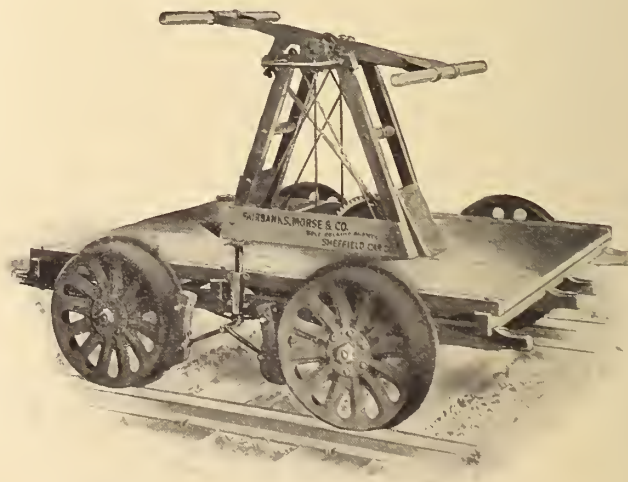
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Recent Dominion Legislation.

The Dominion Parliament at its current session has passed the following acts affecting transportation interests:

Respecting the Albert Central Ry.
Respecting the Alberta Ry. and Irrigation Co.
Incorporating the Algoma Copper Range Ry.
Incorporating the Anthracite Coal Ry. Co.
Incorporating the Athabaska Northern Ry. Co.
Incorporating the Athabaska Ry. Co.
Respecting the Atlantic, Quebec and Western Ry.
Respecting the Battleford and Lake Lenore Ry.
Respecting the Bay of Quinte Ry.
Incorporating the Brantford and Woodstock Ry.
Respecting the Brockville, Westport and North-Western Ry.
Incorporating the Calgary and Battleford Ry. Co.
Respecting the Calgary and Edmonton Ry.
Incorporating the Calgary, Red Deer and Battleford Ry. Co.
Respecting the Canada and Michigan Bridge and Tunnel Co.
Respecting the Canada Atlantic Ry.
Respecting the Canada Southern Bridge Co.
Respecting the Canada Southern Ry. Co.
Respecting the Canadian Pacific Ry.
Respecting a patent of Celeste Joly (monorail railway system).
Respecting the Central Counties Ry. Co.
Respecting the Columbia and Western Ry.
Respecting the Esquimaux and Nanaimo Ry.
Respecting certain patents of the Facer Solid Wheel Co.
Incorporating the Georgian Bay and Seaboard Ry. Co.
Respecting contracts for Government Works.
Respecting the Grand Trunk Ry. of Canada.
Respecting the Guelph and Georgian Bay Ry.
Respecting the Hamilton, Galt and Berlin Ry., and changing its name to the Hamilton, Galt and Guelph Ry.
Respecting the Hudson's Bay and Pacific Ry. Co.
Respecting the Kingston and Dominion Ry., and changing its name to the Dominion Central Ry. Co.
Respecting the Kingston, Smith's Falls and Ottawa Ry.
Respecting the Kootenay, Cariboo and Pacific Ry.
Respecting the Lake Champlain and St. Lawrence Ship Canal.
Incorporating the Lebonk and Thunder Bay Ry.
Incorporating the London and St. Clair Ry. Co.
Respecting the Macleod, Cardston and Montana Ry.
Respecting the Medicine Hat and Northern Alberta Ry.
Respecting the Monterey Electric, Gas Co., and to change its name to the Monterey Electric Light and Power Co.
Respecting the Montreal and Southern Ry.
Respecting the Montreal Bridge Co., and changing its name to the Montreal Bridge and Terminal Co.
Incorporating the Montreal, Quebec and Southern Ry. Co.
Incorporating the Moose Jaw and Edmonton Ry. Co.
Respecting the Niagara, St. Catharines and Toronto Ry.
Respecting the Niagara-Wendland Power Co.
Respecting the Nicola, Kamloops and Similkameen Coal and Ry. Co.
Respecting the Ottawa River Ry., and

changing its name to the Central Ry. Co. of Canada.

Respecting the Ottawa, Northern and Western Ry.

Incorporating the Owen Sound and Meaford Ry. Co.

Amending the Public Works Act.

Amending the Quebec Harbor Commissioners' Act, 1899.

Amending the Railway Act, 1903.

Amending the act relating to the Railways and Canals Department.

Respecting the Red Deer Valley Ry. and Coal Co.

Respecting the Regina and Hudson's Bay Ry.

Incorporating the Saskatchewan Bridge Co.

Incorporating the St. Mary's and Western Ry.

Respecting the Temagami Ry. Co., and to change its name to the Ontario Northern Temagami Ry. Co.

Respecting the Toronto and Hamilton Ry. Co.

Respecting the Toronto and Hamilton Ry.

Respecting the Toronto, Hamilton and Buffalo Ry.

Respecting the Vancouver, Westminster and Yukon Ry.

Respecting the Walkerton and Lucknow Ry. Co.

Respecting the Western Alberta Ry.

G.T.R. Souvenir.—In connection with the special trip of delegates attending the recent International Railway Congress at Washington, D.C., over the G.T.R. from Chicago, Ill., to Niagara Falls, Ont., and Montreal, the company's passenger department issued a handsome souvenir in the shape of an illustrated book entitled "Notes by the Way." The delegates travelled by special train, covering 985 miles of the G.T.R., and the book gives in order a description of the main points touched, in the form of an annotated time table. The text is illustrated with a number of tinted engravings, showing a standard G.T.R. train, Sarnia Tunnel, Niagara Falls, and other important points on the line. The introduction gives a number of interesting facts relating to the G.T.R., the recently acquired Canada Atlantic Ry., and the projected G.T. Pacific Ry. At the end is a list of the company's officers, and a map showing the company's lines in red and purple, the latter being the portions of the line travelled over by the special train. The book is a very fine piece of typographical art, and one of the most artistic pieces of advertising material issued by the G.T.R.

The Newfoundland Government has taken power to fund the temporary debentures issued to provide for the payment of the cash portion of the sum awarded to the Reid-Newfoundland Co., in 1903, by the arbitrators, \$562,203; and the purchase money of the right of way Newfoundland Northern and Western Ry., \$61,000.

The Canadian Prairie Lands Co. has been incorporated under the Dominion Companies' Act, with a capital of \$5,000,000, and the Canadian Northern Prairie Lands Co. has been incorporated under the Ontario Companies' Act with a capital of \$2,000,000. The object in the first case is to deal in lands and aid settlers and to advance money for railway construction; and in the second case to carry on the business of a land company with the usual limitations, incidental and subsidiary powers. The provisional directors are: J. S. Lovell, R. Gowan, W. F. Ralph, R. P. Ormsby, F. C. Annesley, A. J. Mitchell, with the addition of G. H. Cassels in the first-named company. All the provisional directors are connected with the legal firm of Blake, Lash & Cassels, or with Mackenzie, Mann & Co. The offices of both companies are in Toronto.

Victoria Rolling Stock Co.

Following are extracts from the report of the Victoria Rolling Stock Co., of Ontario, Ltd., for the year ended Feb. 15, 1905, presented at the recent annual meeting:—"During the year the company sold £155,600 and \$721,000 of series S 4% debentures, making with \$223,000 sold in 1903, total sales of £155,600 and \$944,000, leaving unsold £41,600 and \$496,000. The discount and commission on the debentures sold during the year was \$76,624.78. Of this the directors wrote off \$20,624.78, leaving \$56,000 carried forward to be dealt with in future years. The total amount of discount and commission on series S 4% debentures might properly have been distributed over the term of this lease (15 years); but the directors thought it better to deal with it in this manner; \$16,100.04 having been written off in the 1903 accounts. Rolling stock to the value of \$737,126.00 has yet to be delivered under this lease; deliveries are being made rapidly and the lease will shortly be completed. During the year outstanding debentures against leases shown in last year's report as \$1,447,000 have been reduced by \$318,000. Debentures issued against series S lease have been reduced by \$160,000. All payments on leases which have matured during the year have been promptly met. The profit on the year's business, after charging up directors' fees, expense account, and discount and commission on debentures sold, is \$20,052.56; out of which a dividend of 12% per annum on the paid-up capital stock, amounting to \$14,400, has been paid, leaving \$5,652.56 carried forward to profit and loss account, which now stands at \$104,257.28. The directors regret to have to record the death during the year of A. B. Lee, who had been a director for many years. D. Coulson has been elected a director to succeed Mr. Lee.

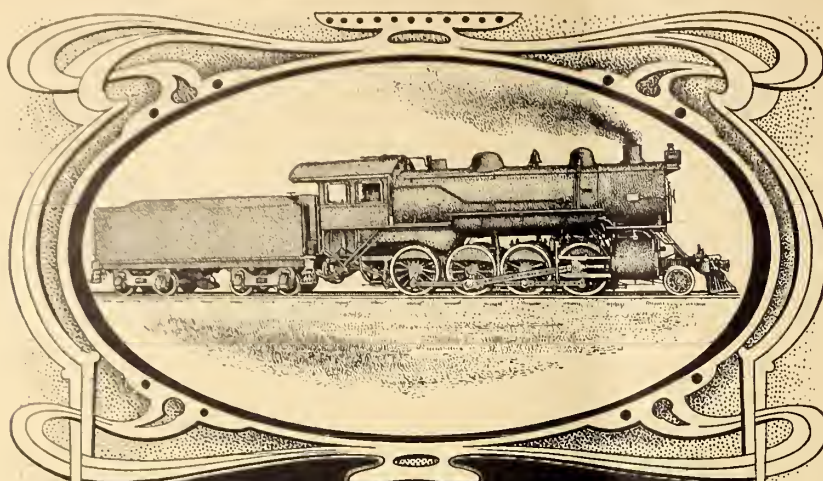
ASSETS.	
Obligations on leases.....	\$1,099,082 83
Paid on account of series S lease.....	1,665,859 50
Debentures and accrued interest.....	107,872 49
Discount and commission on series S debentures sold.....	56,000 00
	\$2,928,814 82

LIABILITIES	
Capital stock subscribed.....	\$600,000 00
Capital stock paid up.....	\$ 120,000 00
Debentures outstanding.....	1,129,000 00
Interest accrued on same.....	16,505 84
Coupons due and not presented.....	160 00
Debentures sold and outstanding against series S lease.....	1,541,253 27
Advances against debentures.....	17,638 43
Balance at credit of profit and loss.....	104,257 28
	\$2,928,814 82

PROFIT AND LOSS ACCOUNT.	
Interest paid and accrued on debentures and advances.....	\$235,906 06
Discount and commission on debentures sold series S.....	20,624 78
Expense account.....	3,173 44
Directors' fees last year.....	1,400 00
Dividend account.....	14,400 00
Balance carried forward.....	104,257 28
	\$379,761 56
Balance at credit of profit and loss, Feb. 15, 1904.....	\$ 98,604 72
Rents received and accrued on leases and interest on debentures held.....	281,156 84
	\$379,761 56
Original cost of rolling stock held under existing leases.....	\$3,660,682 53
Amount paid in on account by railway companies in addition to interest.....	2,531,071 76
	\$1,126,610 77
Total amount of the company's debentures outstanding.....	\$1,129,000 00

The officers and directors for the current year are: President, W. Hendrie; Vice-President, E. B. Osler; Managing Director, H. C. Hammond; other directors: T. G. Brough, D. Coulson, W. D. Matthews, H. Pellatt, D. R. Wilkie; Secretary, R. A. Smith.

The Canadian Freight Association's annual meeting will be held at Hotel Champlain, Bluff Point, N.Y., on July 12 and 13.



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AUTOMATIC LOCOMOTIVE BOILER WASHER**
FOR CHANGING WATER, WASHING AND FILLING LOCOMOTIVES
WE USE THE WASTE STEAM AND WATER
FIVE TO SEVEN HOURS SAVED OVER PRESENT METHODS

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CHICAGO.

C. P. R. LANDS

THE CANADIAN PACIFIC RAILWAY COMPANY have 12,000,000 acres of choice farming lands for sale in Manitoba, Assiniboia, Saskatchewan and Alberta. Manitoba lands and Assiniboia lands east of third meridian, \$4.00 to \$10.00 per acre according to quality and location. Lands in South-Western Assiniboia and Southern Alberta, \$3.50 to \$8.00 per acre. Ranching lands generally \$3.50 to \$4.00 per acre. Northern Alberta and Saskatchewan lands generally \$6.00 to \$8.00 per acre. Maps showing the lands in detail will be sent free on application.

TERMS OF PAYMENT.

An actual settler may purchase not more than 640 acres, on the ten instalment plan by paying a cash instalment at time of purchase, interest at six per cent. on the unpaid purchase money at the end of the first year, and the balance of the principal with interest in nine equal instalments annually thereafter as shewn in the following table:—

160 Acres at \$3.50 per acre, cash payment \$560.00, first year's interest \$28.58 and nine instalments of \$70.00									
" " 4.00 " " " 640.00	"	"	95.85	"	"	32.64	"	"	80.00
" " 4.50 " " " 720.00	"	"	107.85	"	"	36.73	"	"	90.00
" " 5.00 " " " 800.00	"	"	119.85	"	"	40.81	"	"	100.00
" " 5.50 " " " 880.00	"	"	131.86	"	"	44.89	"	"	110.00
" " 6.00 " " " 960.00	"	"	143.86	"	"	48.98	"	"	120.00

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

DISCOUNT FOR CASH.

If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent on five-sixths of the purchase money.

Interest at six per cent. will be charged on overdue instalments.

F. T. GRIFFIN,

Land Commissioner C.P.R. Co., Winnipeg.

CANADA NORTH-WEST LAND CO.

This Company has 750,000 acres of selected lands in Manitoba and Assiniboia which offer excellent opportunities to settlers and investors who desire to secure good lands in well-settled districts. These lands are on sale at the Company's Office at Winnipeg, and at the various land agencies of the Canadian Pacific Railway Company.

EVERYTHING IN RUBBER GOODS

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Water, Pneumatic Tools,
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OF OTHER MAKES.**

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FRONT & YONGE STS., - TORONTO, ONT.
89 PRINCESS STREET, - WINNIPEG, MAN.
403 CORDOVA STREET, - VANCOUVER, B.C.

Quebec Central Railway Meeting.

The following report for the year ended Dec. 31, 1904, was presented at the annual meeting in London, Eng., recently:—

1903.		1904.
\$682,757.	Gross earnings	\$778,969
492,698.	Working expenses	510,373
\$190,059.	Net earnings	\$238,596
157.	Interest on balances	336
\$190,216.	Net revenue	\$238,932

The statement shows increases in the gross earnings of \$96,212, in the working expenses of \$47,675, and in the net earnings of \$48,537. The net revenue for the year amounted to \$238,932. The addition of \$10,989 brought forward from the year 1903 increased the available total to \$249,921. After providing \$88,892 for the year's interest paid and accrued on the outstanding prior lien bonds and 4% debenture stock issued, the sum of \$8,204 was charged against net revenue for alterations, additions, and improvements to bridges, culverts, and stations, etc. There then remained \$152,825, from which was paid interest on the 3% second debenture stock amounting to \$49,348, and a dividend at the rate of 4% for the year on the 7% income bonds, absorbing \$65,797, leaving a balance of \$37,680. The total train miles run have increased by over 10%. In order to provide for this additional traffic 50 new box cars have been ordered and are now in course of delivery. The directors have appropriated \$27,000 out of the surplus towards special betterments and improvements, and have carried forward the balance of \$10,680. Up to Dec. 31, 1904, £268,684 of the new 4% debenture stock had been issued. Of this amount £198,200 had been used in retiring a like amount of prior lien bonds and £70,484 had been sold to provide funds for a portion of the requisite additional capital expenditure authorised by the act of 1899. There remained £151,800 prior lien bonds unexchanged on Dec. 31, 1904. The directors had to regret the death of Jos. Price, and desired to place on record their appreciation of his ability and the invaluable assistance which he was able to render in the conduct of the company's affairs. Thos. Lindley, who had for more than 16 years occupied the position of secretary, had been elected a director to fill the vacancy, and C. D. Brassey had been appointed secretary.

E. Dent, chairman, in moving the adoption of the report referred to the death of Joseph Price, one of the directors, and reviewed the history of the line during the eighteen years that had elapsed since the present board assumed the direction of affairs. Owing to the failure of the contractors and London agents of the company, a considerable amount of the money originally subscribed was never expended on the railway, and the present board had to take over an unfinished line, inadequately equipped, and with a floating debt of over £80,000. Special acts of parliament had, from time to time, been obtained, giving the company fresh borrowing powers and granting subsidies, and to show how judiciously these powers had been exercised, he had only to tell them that in the year 1888 the gross earnings were only \$229,800, and the net earnings \$49,200, whereas in 1904 the gross earnings were \$778,900, and the net earnings \$238,500, in spite of the fact that the mileage during this period had only increased from 153 to 211 miles. Then, as to their equipment. In 1888 they had nine locomotives, whereas now they had 22, and their cars had increased from 238 to over 600. In addition to this, the line had been almost reconstructed, and was now mostly laid with 70-lb. rails. Some of the proprietors might take exception to the conservative charges they had made against revenue in order to bring the road up to date; but he was sure their policy had been a wise one, and that they would in the future reap the benefit of the course pursued. At the time the bond-

holders' committee was formed the old bonds stood at 19, whereas the securities representing those bonds, at the present time, stood at 82. Having referred to the services of F. Grundy, who had been General Manager since 1889, and to the staff in Canada, to whose work the altered condition of affairs was largely due, the chairman proceeded to refer to the annual report. The gross earnings for 1904 showed an increase of \$96,212 over the preceding year, and the net earnings an increase of \$48,537. The total available net revenue, including the amount brought forward, was \$249,921. After paying the fixed charges and 3% on the second debenture stock, a dividend of 4% on the income bonds was declared and had been paid. A balance then remained of \$37,680, and of this sum they had appropriated \$27,000 towards what he might call special betterments and improvements, which were commenced last year, and they were carrying forward the balance of \$10,680 to the current year, practically the same amount as last year. Some might think the appropriation excessive, but they had found it necessary to replace a wooden bridge at Beauce Junction (which was always a cause of anxiety owing to the risk of damage by fire) by a new steel bridge, and this would absorb nearly the whole amount set aside. The year 1904 had been a prosperous one for the company, and although they had had accidents, as all railways must have, they had not been of a serious nature. The increase in freight traffic was very satisfactory, but parts of this was owing to an accumulation of lumber which was held back in 1903, owing to prolonged drought, which prevented the logs being floated down to their stations. The passenger traffic, although showing an increase, might have been better, as there was a decrease in foreign and through passengers, which was attributable to the St. Louis Exhibition, which diverted travellers from Canada. The local passenger receipts, however, showed an increase generally, the line had been kept in good order, 70,000 new ties had been put in the road-bed, 9,000 ft. of new sidings had been constructed, 12,000 ft. of new wire fencing erected, and 20 miles of the main line had been relaid with new 70-lb. steel rails. Owing to the increase of traffic two new locomotives had been purchased, and 50 new box cars ordered. The year 1904 had been the most prosperous one in the history of the company. With regard to the current year, the earnings up to the fourth week of April were \$218,135, as compared with \$217,178 for the corresponding period of last year. The net earnings up to the end of March showed an increase of \$7,071.

F. Grundy, Vice-President and General Manager, Sherbrooke, Que., seconded the motion, and said business was promising better even than in 1904. The company's property was a very good one. With regard to the proposed extension of the line from Scotts to the Quebec Bridge, until they had a more complete report from the engineer, who was now surveying it, he could not say what the cost would be, but it would not vary very much from the estimate already made. As to the Quebec Bridge, the Government of Canada having guaranteed the interest on the balance of the capital required to complete this important undertaking, it was now assured; they said it would be finished in two years—he thought it would be the third year from now. However, when it was completed it would be a good thing for the Quebec Central Ry. It would then have direct communication from New York, Boston, Portland and the important districts of the Eastern Townships, as well as the prosperous counties of Beauce, Dorchester and Levis right into Quebec City. At present all the passengers and freight had to be transferred across the river between Levis and Quebec by ferry boats at considerable inconvenience and loss of valuable time. When the bridge was opened the Q.C. trains would run through and this would, he felt confident, increase their

traffic considerably. He did not think that any company would benefit more than the Quebec Central by the bridge.

The report was adopted and the directors re-elected as follows:—E. Dent, A. Bremner, T. Lindley, F. H. Norman, S. G. Sheppard, London, Eng.; F. Grundy, Sherbrooke, Que., and Z. A. Carrier, Levis, Que.

Railway Employees' Claims for Accidents.

The Dominion Parliament in 1904 passed an Act to amend the Railway Act, 1903, being Chapter 31 of the Statutes of 1904, the bill having been introduced by H. Lennox, M.P., its aim being to cut down the privileges enjoyed by railway companies in connection with the insurance of their employees, by virtue of Dominion legislation. For instance the G.T.R. Co. was empowered by legislation passed in 1874 and 1878, to insure its employees and to make regulations governing the rights of the insured and their representatives. The G.T.R. Insurance and Provident Society is largely supported by contributions from the G.T.R. Co., and it is provided in the by-laws that in consideration of the company's subscription, no member of the Society or his representatives shall have any claim against the company for compensation on account of injury or death from accident. The validity of this provision having been upheld by the Courts, Mr. Lennox introduced the bill referred to, the 1st section of which was passed as follows:—

"Notwithstanding anything in any act heretofore passed by Parliament, no railway company within the jurisdiction or legislative power or control of Parliament shall be relieved from liability for damages for personal injury to any workman, employee or servant of such company, nor shall any action or suit by such workman, employee or servant, or in the event of his death, by his personal representatives, against the company, be barred or defeated by reason of any notice, condition or declaration made or issued by the company, or made or issued by any insurance or provident society or association of railway employees formed, or purporting to be formed, under such act; or by reason of any rules or by-laws of the company, or rules or by-laws of the society or association; or by reason of the privity of interest or relation established between the company and the society or association, or the contribution or payment of moneys of the company to the funds of the society or association; or by reason of any benefit, compensation or indemnity which the workman, employee, or servant, or his personal representatives, may become entitled to or obtain from such society or association or by membership therein; or by reason of any express or implied acknowledgment, acquittance or release obtained by the company or the society or association prior to the happening of the wrong or injury complained of, or the damage accruing, to the purport or effect of relieving or releasing the company from liability for damages for personal injuries as aforesaid."

The second section provided that the question of the competency of Parliament to enact the preceding section should be submitted to the Supreme Court and in the event of the Supreme Court deciding that the provisions of the section were within the powers of Parliament, and the time for appeal having elapsed, or in case of appeal, then in the event of the Judicial Committee of the Privy Council deciding that the provisions were within the powers of Parliament, the act should be brought into force by proclamation of the Governor-General-in-Council.

In accordance with this provision the question of the competency of Parliament to pass Sec. 1 of the act was referred to the Supreme Court. On behalf of the G.T.R. it was contended that Sec. 1 was ultra vires. It was urged that the section not merely prevented the company from entering into contracts with any employee, but it would interfere with any employee entering into any contract sought to be prohibited by the Statutes. It was also contended that the legislation was void, as it was legislation in regard to property and civil rights, and that such legislation could only be enacted by the legislative assemblies of the various provinces. It was further urged that the section would operate to destroy the effect of any

JAS. W. PYKE & COMPANY

CANADIAN REPRESENTATIVES

FRIED. KRUPP, ESSEN, GERMANY.

Steel Rails.

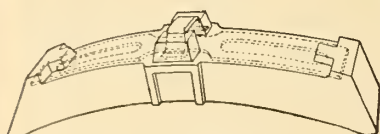
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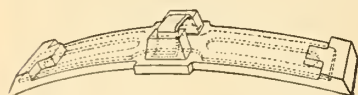
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STEEL BACK CAR BRAKE SHOE

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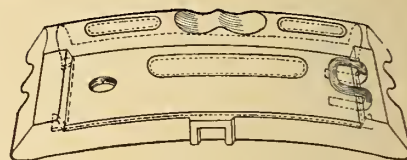
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More dense and durable than common Cast Iron

Perfecto Driver Brake Shoe

THE BEST SHOE FOR GENERAL LOCOMOTIVE
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Back View

PERFECTO DRIVER BRAKE SHOE



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SAULT STE. MARIE, ONTARIO

notice issued by the company, that it would prove injurious to the proper maintenance and operation of the railway, that it would tend to negligence on the part of employes and other results of injurious character to the public service and the safety of the travelling public would result.

On behalf of the Attorney-General of Canada, it was contended that the section related exclusively to lines of railway connecting a province with another province, or extending beyond the limits of a province, or to such railways as, although wholly situate within one province, are declared by Parliament to be for the general advantage of Canada, or for the advantage of two or more of the provinces, and that it was therefore excluded from provincial powers.

On behalf of railway employes affected and the promoter of the Act, it was argued, among other things that all the rights and privileges sought to be modified by Sec. 1, were obtained by the companies from Parliament and that Parliament had the power to withdraw or restrict these privileges.

The case was argued before the Supreme Court at Ottawa, May 2. Judgment, which was reserved, has been delivered, upholding the competency of Parliament to pass Sec. 1, and declaring it to be ultra vires. The Chief Justice and Justices Girouard and Davies, agreed as to the validity of the section, Justice Nesbitt dissenting and holding it to be ultra vires. It is said that the matter will be appealed to the Judicial Committee of the Privy Council.

Qu' Appelle, Long Lake and Saskatchewan Railways.

The report for the year ended Nov. 30, 1904, showed gross earnings, after deducting earnings from Government service, amounting to \$470,838.19, against \$436,350.67 for the previous year, an increase of \$34,487.52 or 7.90%. The total expenses for the year amounted to \$487,107.93 against \$435,155.70 for the previous year, an increase of \$51,952.23 or 11.94%. The percentage of expenses to earnings for the past year was 103.46% as compared with 99.73% for the previous year. The net loss for the year amounted to \$16,269.74, against a profit of \$1,194.97 for the previous year, a decrease of \$17,464.71. Earnings from passenger traffic including Government service, amounted to \$147,447.73, as against \$132,137.68 for the previous year, an increase of \$15,310.05, or 11.58%. Freight, express, mail and miscellaneous earnings, including Government service, amounted to \$327,781.08, as compared with \$310,485.31 for the previous year, an increase of \$17,295.77, or 5.57%. The increase in gross earnings amounting to \$34,487.52, notwithstanding the fact that the road was almost closed for traffic for nearly two months on account of the carrying away of the bridge at Saskatoon in April, 1904, is satisfactory, and indicates the large increase of the volume of traffic of the company's railway. The increase in expenses of \$51,952.23 is partially due to increased traffic, but largely caused by the manner in which traffic had to be handled for some time after the spring freshets, increased expenditure for train supplies being \$24,763.77, loss and damage to freight, \$14,648.81, and superintendence \$3,006.28. With the exception of a few hundred dollars, practically the whole amount shown under train supplies represents money paid out for feeding and caring for passengers on the company's line at the time the Saskatoon bridge was carried away. A permanent bridge is now being erected to replace the structure carried away, but there is little doubt that traffic will be again interrupted for a short time when the ice goes out in the spring. The directors are of the opinion that the company may look forward to a very sat-

isfactory traffic during the present year which should result in considerable net surplus.

ASSETS.	
Cost of road.....	\$4,010,140 00
Bonds held by company <i>re</i> McDowell's mill siding.....	11,253 02
Sundry debtors.....	9,386 97
Interest deferred.....	1,274,157 23
Cash in bank.....	31,403 82
	\$5,336,341 04

LIABILITIES.	
Capital stock paid up.....	\$ 201,000 00
First mortgage bonds, £782,700.....	3,809,140 00
Coupons due and not paid.....	2,237 34
Interest unpaid.....	1,274,157 23
Sundry creditors.....	6,363 16
Profit and loss account.....	43,443 31
	\$5,336,341 04

EARNINGS.	
Balance brought forward.....	\$ 58,653 42
Passenger.....	\$147,447 73
Freight.....	317,477 32
Express.....	6,968 25
Mail.....	2,680 51
Miscellaneous.....	655 00
	\$475,228 81

Less amount of Government service included in the above.....	4,390 62	\$470,838 19
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Balance carried down.....	\$529,491 61
Government subsidy for year £16,438.7/2.....	\$42,383 68
Interest on bonds held by company.....	80,000 00
Interest allowed on deposit.....	475 70
	975 85
	\$123,835 23

OPERATING EXPENSES.	
General expenses.....	\$ 1,676 11
Conducting transportation.....	209,810 34
Management expenses.....	3,289 95
Maintenance of way and structures.....	229,212 51
Maintenance of equipment.....	43,119 02
	\$487,107 93
Balance carried down.....	42,383 68
	\$529,491 61

INTEREST ACCOUNT.	
£11.0/0 paid in cash on account Feb. 1, 1904, coupon £8,218.7/0.....	\$79,991 92
£11.0/0 paid in cash on account Aug. 1, 1904, coupon £8,218.7/0.....	
	£16,436.14/0
Expenses of coupon <i>re</i> service and other expenses (London).....	400 00
Balance carried forward.....	43,443 31
	\$123,835 23

Following are the officers for the current year:—President, H. C. Hammond, Toronto; Vice-President, Hon. W. Pugsley, St. John, N.B.; other directors, G. T. Chisholm, C. T. MacInnes, F. G. Osler, E. B. Osler, M.P., S. B. Sykes, R. A. Smith (secretary), Toronto.

The Y.W.C.A. Railway Department will hold its 12th international conference at Detroit, Mich., Sept. 28—Oct. 1.

The Shippers Cartage Co., has been incorporated under the Dominion Companies' Act, to carry on a general cartage, transfer and transport, business in Canada, and in connection therewith to make contracts with railway and steamship companies; to hold stock in other similar companies, and to carry on various allied businesses. The capital is \$1,500,000 and the chief officers are at Montreal. The incorporators and provisional directors are merely formal, those actually interested in the formation not being named. The active promoter is R. P. Inglis, of Montreal, and it is stated that the intention is to take over the cartage businesses of the Shelden Co., Montreal, and the Wm. Hendrie Co., Hamilton, and to do the cartage for the G.T.R., in the larger cities in Canada. Another report stated that the company had obtained a contract with the C.P.R. to do its cartage, but we are advised that this is not the case. The C.P.R. cartage contract with the Dominion Transport Co., which covered a period of ten years, expired recently, by effluxion of time, but the company is continuing to do the work. Shippers Cartage Co. has not been organized, but when it is, it will probably endeavor to secure a contract with the C.P.R.

Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:—

Authorizing the Canadian Northern Ry. to change the location of its lines and tracks crossing Water St., Winnipeg, Man., and to construct an overhead bridge there, near the west end of the company's bridge over the Red River. (May 16).

Sanctioning alterations in the location of the Guelph and Goderich Ry. between mileage 60 and mileage 80. (May 25).

Authorizing the Canadian Northern Ry. to take certain lands in lots 18 to 32, St. Boniface, Winnipeg, Man., according to a plan filed. (May 29).

Authorizing the opening for traffic of the following extensions of the Canadian Northern Ry.:—Rosburn extension, from near Neepawa, Man., for 20.7 miles; Oak Point branch, from the C.P.R. to the shore of Lake Manitoba, 54 miles; Rosendale or Arizona branch, from Portage la Prairie, Man., for 51.55 miles; Prince Albert branch, from Erwood to Melfort, Sask., from mileage 278.6 to mileage 385.6, or 107 miles; main line (Grand View extension) from mileage 278.7 to mileage 425.1, or 146.4 miles; and from mileage 425.1 to mileage 507.2, or 82.1 miles, the latter at a speed not more than 15 miles per hour. (May 30).

Approving of the location of the Nepigon Ry. from mileage 5 near Helen Lake, Ont., to mileage 31. (May 31).

Sanctioning a deviation from the previously located line of the Pheasant Hills branch of the C.P.R., between mileage 189.8 and mileage 212.5. (May 31).

Approving a deviation from the previously located line of the Vancouver, Victoria and Eastern Ry. near Midway, B.C. (May 31).

Sanctioning plans for the erection of a number of bridges for the Canada Atlantic Ry. (May 31).

Authorizing the opening for traffic of the Greenway branch of the Canadian Northern Ry. from Greenway to mileage 52.1. (May 31).

Approving of the crossings of Rink St., and Wolfe St., Peterboro', Ont., by the C.P.R. tracks. (May 31).

Sanctioning deviations from the previously located line of the Canadian Northern Ry. at several points between mileage 531 and mileage 739, main line. (June 2).

Approving a deviation from the present constructed line of the C.P.R. fronting the Humber River, at Lambton, Ont. (June 5).

Authorizing the carrying of the wires of the Okanagan Telephone Co. across the line of the Shuswap and Okanagan Ry. at Vernon, B.C. (June 5).

Approving a deviation from the previously located line of the James Bay Ry. in the townships of Brock and Thorah, Ont., between mileage 57.44 and mileage 63.39.

Approving of detail plan of the substructure of the bridge across the Seguin River at Parry Sound, Ont., for the James Bay Ry. (June 6).

Approving plans for the reconstruction of the substructures of the bridges across the Rideau and Nation Rivers, for the Canada Atlantic Ry. (June 6).

Authorizing the construction of 11 bridges crossing various rivers and creeks for the Guelph and Goderich Ry., and approving plans for the same. (June 6).

Approving the location plans of the Bessemer and Barry's Bay Ry. from near L'Amable, Ont., for 5½ miles. (June 7).

Granting an extension to June 23, 1905, to the G.T.R., for the completion of the branch line in London, Ont., authorized by the order of July 6, 1901. (June 8).

Authorizing the C.P.R. to acquire certain lands at Toronto Junction, Ont., for providing further accommodation there. (June 9).

Freight Rate Matters.

The Canadian Manufacturers' Association has applied to the Board of Railway Commissioners for reconsideration of some of the classification matters which were brought to the attention of the Board at its sitting in Toronto last summer. The point upon which the Association desires specially to secure a ruling from the Board has reference to the extension of the mixed carload privilege to the territory west of Port Arthur. The compromise arranged, in order to permit a temporary approval of the classification, involved the restoration of the mixed carload privilege in the territory east of Port Arthur only.

The Association complains of the minimum charge for articles requiring platform cars for carriage as given in rule 6 of the classification. The objection has reference to the minimum weight of 6,000 lbs., which the Association contends is excessive. A reduction is asked to 4,000 lbs.

Rule 7, respecting freight carried at "owner's risk" and "released," is claimed to be too ambiguous. The rule does not specify what is meant by these terms, nor does it indicate the extent to which the carriers are permitted to limit their liability. The penalty of 50%, where goods are required by shippers to be transported at carrier's risk, is contended to be excessive.

Rule 30—Smalls. The Association's complaint states that the "smalls" charge on Canadian railways is 35 cents, or, if cartage is performed, 59c.; that formerly this service, including cartage, was performed by Canadian railways for 35 cents, and that the universal "smalls" charge throughout the United States, exclusive of cartage, is 25c. The Association asks the Board to make the latter charge applicable in Canada.

The Halifax and Southwestern Ry. is operating a tri-weekly freight and passenger service on its line from Caledonia to New Germany, and from Liverpool to Halifax, N.S.

The Canadian Westinghouse Co. has issued circulars 1109 and 1110, descriptive of single-phase railway system and Westinghouse catenary line construction; and circular 1104 dealing with Westinghouse portable instruments for testing and measuring.

The Winnipeg Transfer Co., has been incorporated under the Manitoba Companies' Act, with a capital of \$50,000, to carry on a general cartage and transfer business in Winnipeg, and throughout Manitoba. The head offices will be in Winnipeg, and the incorporators are A. M. and H. W. Nanton, J. D. Clark, J. Lemon, and G. W. Allan, all of Winnipeg.

The Eastern Canadian Passenger Association met in Toronto, June 6, at 10.30 a.m., and adjourned until 4 p.m. to allow the members to attend the funeral of the late A. P. Cockburn, Secretary and Manager of the Muskoka Navigation and Hotel Co., in connection with whose death a resolution of condolence was adopted. Considerable business was transacted principally relating to fares for various events.

The Washington correspondents and members of the Gridiron Club left Washington, D.C., Wednesday, June 21, via Baltimore and Ohio Rd., Philadelphia and Reading Rd., and Lehigh Valley Rd., for Suspension Bridge, and then via G.T.R. special to Toronto and Montreal, then travelling by C.P.R. special to Ottawa, and making stops at Fort William and Winnipeg to the coast. The party will return via C.P.R. and Soo line to North Bay, thence by G.T.R. to Suspension Bridge, and home over the U.S. lines.



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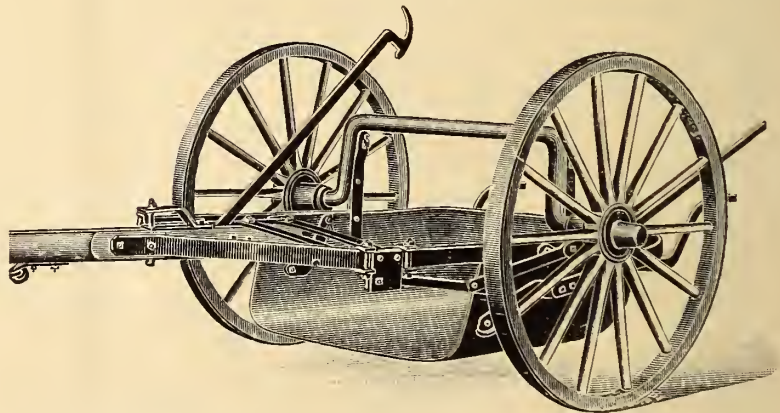
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Railway Equipment Notes.

The G.T.R. added to its rolling stock 378 box cars of 60,000 lbs. capacity recently.

The G.T.R. is reported to be asking prices on three parlor cars and 25 passenger cars.

The Brockville, Westport and Northwestern Ry. has sold two old type engines to be scrapped.

It is reported that the Prince Edward Island Ry. freight cars are to be equipped with M.C.B. couplers.

The Quebec and Lake St. John Ry. has purchased a locomotive and a passenger car from F. M. Hicks & Co., Chicago.

The James Bay Ry. has received 125 flat cars, 60,000 lbs. capacity, out of an order of 200 placed with the Crossen Car Manufacturing Co., Cobourg, Ont.

The Halifax and Southwestern Ry. has received 50 flat cars, 60,000 lbs. capacity, and 25 box cars, 60,000 lbs. capacity, from Rhodes, Curry & Co., Amherst, N.S.

The Temiskaming and Northern Ontario Ry. Commission has purchased the private car Wolverine from the Ann Arbor Ry. Co. The car has been renamed Temagami.

The James Bay Ry. has been registered as the owner of the following equipment: three locomotives, two passenger coaches, 200 flat cars of 60,000 lbs. capacity, and four conductor's vans.

The W. H. Kelson Co., Montreal, has delivered to A. R. Macdonell, contractor for the Temiskaming and Northern Ontario Ry., three second-hand locomotives. They were supplied through Fitz-Hugh, Luther Co., Chicago, Ill.

The C.P.R. placed orders for the following rolling stock between May 18 and June 12: 248 flat cars, 7 first-class cars, 5 suburban cars, 3 baggage cars and 3 second-class and smoking cars, to be built at its Angus shops, Montreal.

The Canadian Northern Ry. has received 75 box cars. The 10 locomotives ordered from the Locomotive and Machine Co., of Montreal, have been completed, and, we were advised June 16, were being tested at Montreal prior to delivery.

The Temiskaming and Northern Ontario Ry. has not ordered three second-hand locomotives as recently stated in press reports. It will shortly be in the market for one second-hand locomotive, one 1st class passenger car, and two or three 2nd class passenger cars.

The Westinghouse Air Brake Co. has received orders from the Baltimore & Ohio Rd. for the equipment of 10,000 of its cars with Westinghouse friction draft gear apparatus. This will make a total of 25,000 cars on this system equipped with the friction draft gear device.

The C.P.R., between May 18 and June 12, received the following rolling stock:—5 switching locomotives, 5 sleeping cars, 4 colonist cars, 139 box cars, 101 flat cars, 150 ballast cars, from its Angus, Montreal, shops; 8 vans from its Farnham, Que., shops, and 4 steam shovels from the Locomotive and Machine Co., of Montreal.

The Intercolonial Ry. received between May 20 and June 15 the following additional rolling stock:—3 Pacific type locomotives from the Canadian Locomotive Co., Kingston, Ont., and 76 box cars, 60,000 lbs. capacity, from Rhodes, Curry & Co., Amherst, N.S. The I.C.R. is not in the market at present for any additional rolling stock.

The vote in the House of Commons, May 23, for rolling stock for the Intercolonial Ry., was for \$383,000, and was a revote of the unexpended portion of a total vote of \$1,383,000. On the same date there was also voted \$465 for a portable plant for boring and cutting rails, and \$9,350 for new machinery for locomotive and car shops.

The Canadian Locomotive Co. has recently delivered one of several Pacific type locomotives it is constructing for the Intercolonial Ry. Following are the general dimensions: weight on drivers, 127,000 lbs.; weight in working order, 187,000 lbs.; weight of tender, 122,300 lbs.; total weight of engine and tender, 309,300 lbs.; cylinder, 21 x 28 ins.; working pressure, 200 lbs.; diameter of driving wheels, 72 ins.

In connection with the preparing of plans for the G.T. Pacific Ry. equipment, so far as circumstances permit the locomotives will be standardized. There will be several types to suit the requirements of the traffic, and the conditions of the different portions of the line, but it is intended to have as many of the parts as possible interchangeable. This has been done to a large extent on the G.T.R., and has resulted in the saving of considerable time and expense in the way of repairs.

The Grand Trunk Ry., between April 9 and June 3, received from the Locomotive and Machine Co., of Montreal, 10 Richmond

Compound Mogul locomotives, and during the month ended June 3, five box cars from the U.S. Following are some of the dimensions of the locomotives:—

	Light.	Loaded.
On truck.....	21,560 lbs.	22,960 lbs.
On drivers.....	128,688 "	140,744 "
Total.....	150,248 "	163,704 "
Tender.....	65,200 "	143,300 "
Total Loco. and Tender.....	215,448 "	307,034 "

It is reported that a clearing house for the pooling of freight car repairs will be established by the Vanderbilt lines on July 1. The railways in the pool are the New York Central Rd., Lake Shore and Michigan Southern, Lake Erie and Western, Indiana, Illinois and Iowa, Michigan Central, and Rutland. The idea of the pool is to provide all shops of the Vanderbilt system with uniform supplies so that when a freight car is damaged or disabled it may be repaired in the nearest shop regardless of the particular road to which it belongs, and the charges for same reported to the clearing house in New York. — Railway and Engineering Review.

We have been asked to state who will purchase rolling stock for the portion of the National Transcontinental Ry. between Moncton, N.B. and Winnipeg. Section 22 of the agreement between the G. T. Pacific Ry. Co., and Government, ratified by Parliament in 1903, provides that the Company shall equip both divisions of the railway, i.e. east and west of Winnipeg, with modern and complete rolling stock * * * the first equipment for the completed road to be of the value of at least \$20,000,000, of which not less than \$5,000,000 worth to be for the Eastern Division, together with all renewals of and additions thereto, to be marked Eastern Division * * * to be held to form part of the equipment of the Eastern Division for the 50 years of the lease. Section 23 provides for the maintenance, repair and renewal of equipment by the Company.

The Minneapolis, St. Paul and Sault Ste. Marie Ry. is having built at the American Locomotive Co.'s Schenectady Works, several two cylinder compound consolidation (2-8-0) locomotives. Following are the general dimensions:—

WEIGHT. On drivers, 174,000 lbs.; on truck, 27,500 lbs.; total, 201,500.

WHEEL BASE.—Driving, 17 ft.; engine, 25 ft. 11 in.; engine and tender, 55 ft. 10½ in.

CYLINDER.—Diameter 23 and 25 in.; stroke, 34 in.; spread, 86 in.

WHEELS.—Driving, diameter, 63 in.; centres, 56 in.; material, cast steel; journals, 9½ and 9 by 12 in. Engine truck wheels, 33 in. dia.; journals, 6 by 10 in. FRAMES.—Width, 4½ ft.

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In the United States 170 railroads have equipped over 25,500 cars with Pintsch Light. In the World more than 135,000 cars, 6,000 locomotives and 1,800 buoys are using Pintsch Light, the test of experience having proven it the most economical, safe and reliable system for car lighting. Pintsch Gas Buoys adopted as standard by the United States Lighthouse Board. Highest awards taken at World's Expositions at Moscow, Vienna, St. Petersburg, London, Berlin, Paris, Chicago, Atlanta, Buffalo, and now St. Louis.

SAFETY HEATING SYSTEMS RECEIVED THE HIGHEST AWARD

Practical service for the past 18 years has demonstrated the reliability, efficiency and adaptability of the Safety Systems of Direct Steam and Hot Water Heating which are being applied in large quantities to railroad equipment. Straightport couplers. Automatic Steam Traps. 140 Railroads are using these devices, applied on 16,000 cars. Standard on Pullman cars.

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BOILER.—Type, extended wagon top; diameter, 67½ in. outside first ring; pressure, 210 lbs.

FIREBOX.—Length, 96½ in.; width, 70½ in.

TUBES.—No. 224 of 2 in. diameter, and 40 of 3½ in. diameter; thickness, no. 11 and no. 8; length, 15 ft. 9 in.

HEATING SURFACE.—Tubes, 2,407.53 sq. ft.; firebox, 157.97 sq. ft.; total, 2,565.5 sq. ft. Grate area 46.8 sq. ft.

TRACTIVE POWER.—37,300 lbs. Factor of adhesion, 4.51

SUPERHEAT.—Heating surface 261 sq. ft.

TENDER.—Frame, 10 ft. steel channel; wheel, diameter, 33 ins.; type of truck, two 4-wheel C.B.; journals, 5½ by 10 ins. Type of tank, U shape; water capacity, 6,000 gals.; fuel capacity, 10 tons

TRANSPORTATION APPOINTMENTS.

Canadian Pacific Ry.—D. W. Campbell, General Superintendent Atlantic Steamships, has resigned and the position has been abolished.

C. W. Fee has been appointed Resident Engineer, second district, Central Division, succeeding W. S. Edge, resigned. Office, Winnipeg, Man.

A. J. McLeod has been appointed Bridge and Building Master, third district, Central Division, succeeding N. Hayden, resigned. Headquarters, Brandon, Man.

H. H. Abbott, heretofore local agent at Vancouver, B.C., has been appointed Assistant General Freight Agent, Western Division, succeeding G. H. Smith, transferred to the Central Division. Office, Calgary, Alta.

A press report states that — Searlett, city passenger agent at Vancouver, B.C., has been transferred to Skagway, Alaska, and has been succeeded by C. E. Blaney.

Duluth, South Shore and Atlantic Ry.—M. Adson, heretofore General Agent at Duluth, Minn., has been appointed General Passenger Agent, succeeding G. W. Hibbard, resigned. Office, Duluth, Minn.

Jas. Maney, rate clerk, has been appointed Assistant General Passenger Agent. Office, Duluth, Minn.

Grand Trunk Pacific Ry.—J. R. Stephens, Assistant Engineer, has left the service.

G. H. Pope, heretofore G.T.R. live stock inspector, Montreal, is reported to have been appointed Right-of-Way Agent, G.T.P. Ry. Office Fort William, Ont.

Grand Trunk Ry.—F. Crane, heretofore general agent at Sherbrooke, Que., has been appointed Ticket Agent, Bonaventure station, Montreal, succeeding J. C. Wilson.

L. L. Grabill has been appointed baggage agent at Bonaventure station, Montreal.

J. B. Harris, heretofore baggage agent at Hamilton, Ont., has been appointed assistant baggage agent Bonaventure station, Montreal.

W. J. Cockburn has been appointed Baggage Inspector of the System. Office, Toronto.

J. Gray, heretofore freight agent at Buffalo, N.Y., has been appointed acting freight agent at Hamilton, Ont., in place of J. Wallace, and is succeeded at Buffalo by A. S. Fraser, acting agent.

An official informed us, June 24, with respect to the press reports that ex-Alderman Whitham of Brantford, Ont., had been appointed General Inspector of Buildings, an office formerly held jointly with that of Inspector of Bridges, that no such appointment had been made.

The following agents have been appointed: Sherbrooke, Que., T. King; St. Hilaire, Que., E. Peterson; St. Lambert, Que., N. Morrill; Arthabaska, Que., A. Pelletier; Beaconsfield, Que., H. H. Jones; Brockville (freight), Ont., F. A. Larke; Trenton, Ont., G. A. Hoag; Grafton, Ont., A. E. Milner; Keene, Ont., J. L. Dodds; Kimmount, Ont., J. P. Brownridge; Aurora, Ont., J. Hodgins; Colwell, Ont., S. Blatherwick; Limehouse, Ont., J. Levitt; Tecumseh, Ont., S. F. Ball; Goldstone, Ont., D. Alair; Southampton, Ont., F. Goodier; Ayton, Ont., J. H. Fawcett; Bluevale, Ont., J. G. Clancey; Brucefield, Ont., H. Prince; Londesboro, Ont., C. P. Carlisle.

W. J. Gilkerson, heretofore Travelling Passenger Agent, Chicago, Ill., has been appointed Travelling Passenger Agent at St. Paul, Minn., succeeding D. Brown, Jr., resigned. He reports to the Assistant General Passenger and Ticket Agent, Chicago.

O. C. Bryant, heretofore advertising clerk, Chicago, Ill., has been appointed Travelling Passenger Agent there, succeeding W. J. Gilkerson, transferred to St. Paul. He reports to the Assistant General Passenger and Ticket Agent, Chicago.

Halifax and South-Western Ry.—The Halifax and Yarmouth Ry. having been taken over by the H. and S. W. Ry., C. Cooper, Superintendent of the H. and Y. Ry., has resigned.

G. C. Farish, heretofore Chief Clerk in the office of the Superintendent Halifax and Yarmouth Ry., has been appointed Acting Superintendent Yarmouth Division H. and S. W. Ry.

Lake Superior Corporation.—W. H. Plummer, Sault Ste. Marie, Ont., has been appointed by the Ontario Government a director to succeed N. W. Rowell, K.C.

W. H. Hearst, Sault Ste. Marie, Ont., has been appointed agent for the Ontario Government in connection with the company's affairs, succeeding N. W. Rowell, K.C.

Mr. Rowell continues to act as Solicitor for the company.

Muskoka Lakes Navigation and Hotel Co.—W. F. Wasley, heretofore Assistant Manager and treasurer, has been appointed acting Manager, succeeding the late A. P. Cockburn. He also retains the position of Treasurer.

Northern Navigation Co.—S. Bickford has been appointed Travelling Passenger Agent at Toledo, Ohio.

MAINLY ABOUT PEOPLE.

F. M. Rattenbury, architect of the C.P.R. hotel at Victoria, B.C., is visiting England.

Lord Mount Stephen celebrated his 76th birthday, June 5, at his London, Eng., residence.

Dr. Jas. Thorburn, who died in Toronto recently, was the first surgeon in Toronto of the G.T.R.

A. F. Harrison, I.C.R. baggage master at St. John, N.B., for the past 16 years, died there recently.

W. A. Clement, assistant city engineer, Toronto, has been appointed City Engineer of Vancouver, B.C.

G. F. Shepley, K.C., who has been engaged upon a number of railway arbitration matters recently, has gone to England.

I. Suckling, who died at Toronto, May 30, aged 94, was father of H. Suckling, Assistant Treasurer C.P.R., Montreal.

R. Bain, son of Jas. Bain, Superintendent of the Quebec and Lake St. John Ry., died suddenly on a train when returning to Quebec, June 5.

Mrs. Prindiville, mother of W. A. Prindiville, Superintendent of the Halifax Electric Tramway Co., died recently.

J. D. Warwick, who was largely engaged in wharf construction for the Dominion Government died at Brockville, Ont., June 14.

J. R. Waghorn, who for many years published Waghorn's Railway Guide, at Winnipeg, Man., has moved to Vancouver, B.C.

H. Egg, son of W. F. Egg, formerly C.P.R. city passenger agent, Montreal, was married to Miss Eva Carson, at Montreal, May 29.

L. M. Mitchell, of the Treasurer's office Canadian Northern Ry., Toronto, was married to Miss Stanway, at Toronto, June 21.

R. Reid of the Transcontinental Railway Commission has purchased 286 McLaren St., Ottawa, and taken up his residence there.

J. McLerie, Northwest Agent Montreal and Lake Superior Line at Winnipeg, has recovered from his recent illness and is on duty again.

The new Presbyterian Church erected at Kirkfield, Ont., by W. Mackenzie, President Canadian Northern Ry., was opened June 5.

M. Zimmerman, General Manager Brockville, Westport and Western Ry., has taken up his residence at Brockville, Ont., for the summer.

J. W. Platten, Second Vice-President Lehigh Valley Rd., has resigned to become Vice-President United States Mortgage Corporation.

Hon. P. Garneau, of Quebec, President of the Great Northern Ry., and a director of the Quebec and Lake St. John Ry., died there, June 23, aged 82.

Jas. Murdoon, Toronto, was elected Fourth Vice-President of the Brotherhood of Railway Trainmen at the recent convention held at Buffalo, N.Y.

Miss E. Emmerson, daughter of the Minister of Railways and Canals, was married to R. Deacon, of Milton, Ont., at Dorchester, N.B., June 7.

Mrs. R. R. Benton, widow of C. Benton, first Master Mechanic of the Canada Southern Ry., at St. Thomas, Ont., died at Tillsonburg, Ont., recently.

Mrs. Brignall, wife of J. J. Brignall, chief clerk in the C.P.R. District Passenger Agent's office, Toronto, died at 24 Concord ave., Toronto, May 29.

Miss C. C. Lash, daughter of Z. A. Lash, K.C., Counsel for the Canadian Northern Ry., was married June 6 to K. D. McMillan, of Princeton, N.J.

The estate disposed of by will by Mrs. Bell, wife of J. Bell, K.C., consulting counsel, G.T.R., Belleville, Ont., was valued for probate at \$90,000.

Mrs. Bicknell, wife of Jas. Bicknell, K.C., Solicitor Toronto Ry., died in Toronto, May 31. On June 18 Mr. Bicknell's mother died at Hamilton, Ont.

The funeral of the late F. B. Wade, Chairman Transcontinental Railway Commission, who died at Ottawa, took place at Bridge-water, N.S., May 29.

Miss M. Dwight, daughter of H. P. Dwight, President G.N.W. Telegraph Co., was married to D. A. Ross, Civil Engineer, Winnipeg, Man., at Toronto, June 14.

Lady Van Horne and family have moved from Montreal to their summer residence at St. Andrew's, N.B. Sir Wm. Van Horne left Montreal for Cuba, June 22.

C. G. Hanning, civil engineer, who had been associated with the surveys for, and construction of, a number of Canadian lines, died at Galt, Ont., recently, aged 80.

Sir C. Rivers Wilson, President G.T.R., have returned to England, after making an official trip of inspection over the line. He was accompanied by Lady Wilson.

T. F. Brennan, Canada Atlantic Ry., Ottawa, was present at the semi-annual meeting of the Eastern Association of Car Service Officers, held at New York, June 8.

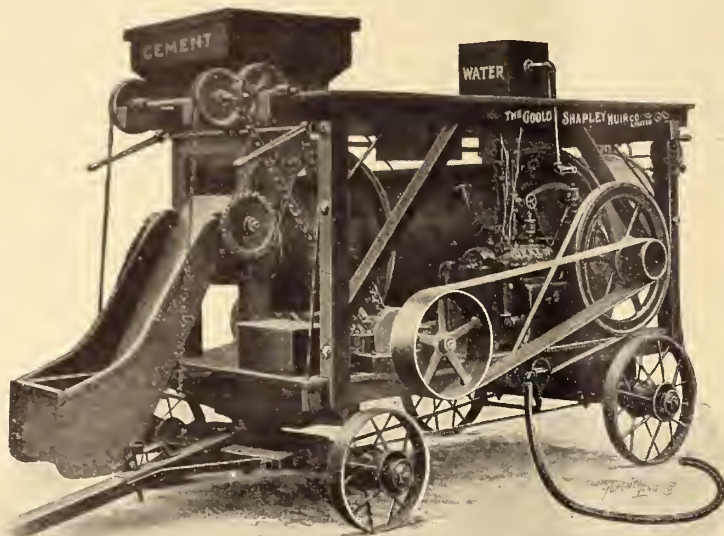
W. J. Fairbairn, C.P.R. agent at the St. Lawrence and Ottawa station, Ottawa, has been appointed Appraiser of Customs at Ottawa, in succession to the late A. H. Taylor.

H. C. Williams, heretofore in the office of the chief engineer, Intercolonial Ry., Moncton, has been appointed Resident Engineer, Louisville and Nashville Rd., at Conasanga, Tenn.

A. E. Rosevear, Freight Claim Agent, G.T.R., was appointed one of the committee of three on arbitration at the recent meeting of the Freight Claim Association, at Philadelphia, Pa.

Mrs. Lumsden, wife of H. D. Lumsden, Chief Engineer Transcontinental Railway Commission, and family have moved from

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Ottawa to their summer residence at Orillia, Ont.

R. Salmon, late of the Marine Department, Ottawa, has been indicted by the New York city Grand Jury for personating Commander Spain, of the Dominion Fisheries Protection service.

G. E. King, who recently resigned his position as Assistant General Passenger Agent of the Michigan Central Rd., at Chicago, is now with his family on his fruit ranch at Fair Oaks, California.

G. A. Somerville, G.T.R. station agent at Kincardine, Ont., was recently presented with an address and some pieces of silver by the residents of the town, on his leaving for the Northwest.

C. T. Riddell, foreman of the car shops of the Michigan Central Rd., at St. Thomas, Ont., has left after nearly 20 years' service, to take a foremanship at the C.P.R. Angus shops, Montreal.

The appointment of J. H. Ashdown, of Winnipeg, as a member of the Transportation Commission, although made by Order-in-Council dated Jan. 7, was not officially published until May 27.

C. T. Lewis, connected with the I.C.R. prior to 1882, and for 20 years in the C.P.R. service at Winnipeg, Man., but latterly with the Canadian Northern Ry., has resigned to go into the contracting business.

D. Brown, Jr., after 23 years' service with G.T.R., has resigned his position as Travelling Passenger Agent G.T.R., at St. Paul, Minn., and has been appointed Eastern Agent Chicago Great Western Rd., at New York.

H. P. Madden, cashier Michigan Central Rd. freight offices, St. Thomas, Ont., was the recipient recently of a set of pipes and other smoker's supplies, from members of the staff, on leaving the company's service.

J. Hendry, President of the Vancouver, Westminster and Yukon Ry., with Mrs. Hendry, accompanied the Canada Manufacturers' Association, of which he is Vice-President, on its trip to Great Britain.

Thos. Jackson, an engineer engaged in one of the survey parties on the Ottawa and Georgian Bay canal, was accidentally shot by the discharge of a rifle, while lifting his coat from a canoe, near Portage du Fort, Que.

E. G. Russell, formerly Manager Intercolonial Ry., Moncton, N.B., and now residing in Buffalo, N.Y., has secured control of five square miles of timber lands near Fort George, in the Nechaco country, B.C.

P. E. Ryan, Secretary of the Transcontinental Railway Commission, Ottawa, was married there June 26, to Miss Chapleau, daughter of the French Clerk of Votes and Proceedings of the House of Commons.

A. R. Macdonell, contractor for the Temiskaming and Northern Ontario Ry., and D. Russell, the Montreal promoter, had a number of deals together, and are now suing each other for \$25,000 in connection therewith.

G. W. Hibbard has resigned his position as General Passenger Agent, Duluth, South Shore and Atlantic Ry., and is reported to have received an appointment on the passenger staff of the National Lines of Mexico.

C. Wurtele, who has been appointed General Eastern Agent for Canada for the Great Northern Ry., U.S., was married to Miss Kellogg, at Seattle, Wash., May 20, prior to his removal from the Pacific coast to Toronto.

P. S. Archibald, C.E., Moncton, N.B., formerly Chief Engineer, Intercolonial Ry., is acting as consulting engineer for A. E. Trites, who has a contract for the construction of a new line in Maine for the Boston and Aroostook Ry.

J. G. Sing, for five years chief assistant to the late Major Gray, Dominion Engineer, Toronto, has been appointed to the vacant

position, and H. J. Lambe succeeds him as Acting Engineer in charge with headquarters at London, Ont.

Jas. A. Ruel, a civil engineer of Gibson, N.B., died there June 2. He was engaged in survey and contracting work on the New Brunswick Ry. from Gibson to Edmundston, the Canada Eastern Ry., and the Prince Edward Island Ry.

G. H. Pope was presented with a gold watch and chain by the live stock exporters of Montreal on retiring from the position of live stock inspector at Montreal, to take the position of Right-of-Way Agent for the G. T. Pacific Ry., at Fort William, Ont.

Thos. Rodger was presented with a purse of gold by his associates June 7, on the occasion of his leaving the Great North-Western Telegraph Co.'s service, after 31 years' continuous service. At the time of his leaving he was chief operator at Montreal.

E. S. Smiley, who recently resigned his position as Division Freight Agent of the I.C.R., at St. John, N.B., has removed to Winnipeg, and is reported to be representing Kilgour Bros., of Toronto, manufacturers of paper bags, paper boxes, etc.

Notice is given that A. G. Blair, Jr., law clerk to the Board of Railway Commissioners, son of Hon. A. G. Blair, ex-Minister of Railways and Canals, and ex-Chairman of the Railway Commission, will be called to the Ontario Bar next term, under the rules in special cases. The notice is signed by F. H. Chrysler, K.C., Ottawa.

C. Morgan, formerly Treasurer of the Rutland Rd., has been appointed Professor in charge of the newly inaugurated department of Railroad Transportation, McGill University, Montreal. H. M. McKay, a graduate of McGill, and subsequently engaged with Waddell and Hedrick, Consulting Engineers, Kansas City, Mo., has been appointed Assistant Professor of Civil Engineering in connection with the department.

C. R. Hosmer, director of the C.P.R., is a provisional director of the Kakabeka Power Co., with a capital of \$2,000,000 and offices at Fort William, Ont., incorporated under the Dominion Companies' Act, to develop power at the falls of the Kaministiquia River. His associates in the enterprise are H. S. Holt, F. W. Thompson, H. W. Norton, of Montreal, and F. H. Phippen, of Winnipeg, Man.

H. Fraser, for over 42 years in the service of the New York Central and Hudson River Rd., his last position being station agent at Lewiston, N.Y., died there June 14, aged 79. He retired from the service a number of years ago. He was father of B. P. Fraser, Passenger Agent, Buffalo District, Pennsylvania Rd. System, Buffalo, N.Y., and uncle of Jas. Bryce, Vice-President and General Manager, Canadian Express Co.

M. J. Haney, C.E., contractor, Toronto, has been elected a director of the newly organized Home Bank, which proposes to take over the property, assets and liabilities of the Home Savings and Loan Co. Mr. Haney has been awarded the contract for the construction of the new tunnel from Toronto to the Island, for the corporation water-works, and will lay out yards, etc., for the assemblage of material, etc., on Ashbridge's Bay.

J. Sparks, who has been appointed Assistant General Baggage Agent C.P.R. western lines, Winnipeg, Man., was born in London, Eng., April 25, 1874, and entered railway service 1899, his record being: 1899, clerk in accountant's department, Winnipeg; 1899 to 1901, clerk in general baggage department, Winnipeg; 1901 to 1902, assistant to Pacific division representative baggage department, Vancouver, B.C.; 1902 to 1903, in charge of general baggage department, Pacific division, Vancouver; 1903 to 1905, representative

Western and Central divisions general baggage department, Winnipeg; entire service with the C.P.R.

E. F. Siexas, whose portrait appears on the first page of this issue, was born in New York City, Oct. 26, 1870, and after taking a student's electrical course at Schenectady, N.Y., from 1888 to 1890, spent a number of years in construction work, and in travel and study in various parts of the United States and Europe. In 1891, he was superintendent of interior wiring at the Chicago World's Fair (electrical department) and in 1895 was connected with the electrical department at the Atlanta, Ga., Exposition. In 1896, he was engaged in the consolidation of the Lighting and Ry. Co. of Amsterdam, N.Y., remaining as manager until 1901, when he resigned to become General Manager of the Niagara, St. Catharines and Toronto Ry., which position he still holds.

F. Hoffmeister, who has been appointed Electric Superintendent of the British Columbia Electric Ry., is a native of Ontario, but moved to British Columbia in early life. In 1892 he was appointed chief electrician of the San Francisco and San Mateo Ry., and three years later became Professor of Electrical Science, as applied to electric railways and steam engineering, in a San Francisco College. In 1898 he was appointed erecting engineer for the Canadian General Electric Co., and has had charge of electric installations on the Soulanges Canal; Montreal Street Ry.; Halifax Electric Tramway Co.; St. John Ry.; Winnipeg Street Ry.; the C.P.R. Angus shops, as well as a number of electric light companies and power plants.

Jas. Cochrane, a representative of Montreal in the Quebec Legislature, and an ex-Mayor of the city, died there May 28, after a somewhat lengthened illness, aged 54. He was born at Kincardine, Scotland, in 1851, and was brought at an early age to Montreal, where he was educated. He began his business career with the Montreal Telegraph Co., becoming ultimately night manager. He was subsequently engaged in connection with telegraph offices in Whitehall and Malone, N.Y.; and Boston, Mass., as well as a number of Canadian points up to 1880, when he was at Winnipeg, Man. He constructed the first telegraph line on the north shore of Lake Superior, between Nepigon and Dog Lake, Ont. He was engaged in railway construction work with the late J. J. Macdonald, on the Intercolonial Ry., and with M. J. Haney, on Section 15 of the C.P.R. In later years he has been engaged mainly in civic contracting work.

H. H. Schaefer, who has been appointed District Freight Agent, Intercolonial Ry., at St. John, N.B., was born at Cologne, Germany, Feb. 10, 1848, and came to Canada with his parents in 1855. After residing for some time in Nova Scotia, he with his family moved to Prince Edward Island, where he subsequently entered the service of the Anglo-American Telegraph Co., then the New York, Newfoundland and London Telegraph Co. After holding various positions with that company he became manager at the repeating point at Sackville, in 1870. He became connected with the I.C.R. in 1871, serving successively as station agent at Sackville (1871-76), Shediac (1876-78), Point du Chene (1878-92); travelling freight agent, 1892 to 1897; in charge of the weighing department, 1897 to 1898; chief clerk to General Freight Agent, 1898 to date of present appointment. He also acted as secretary to the freight rate commission appointed to take evidence in regard to alleged excessive freight charges in the Northwest in 1895. While at Point du Chene he started the marine boat slide, otherwise known as chute-the-chutes, which he patented in Canada and the U.S. in 1885.

A. P. Cockburn, the pioneer of the Muskoka country, died suddenly at his residence, Jarvis

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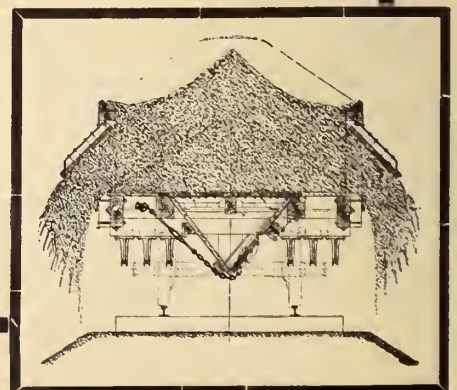
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(Late James Cooper)

St., Toronto, June 2, aged 69. He was born in Stormont, Ont., April 7, 1837. He became interested in the Muskoka District in 1865, taking up his permanent residence there later. He founded the Muskoka Settlers' Association in 1867, and wrote a number of guide books to the country. He built the first steamer on the Muskoka Lakes in 1866, and added others from time to time. In 1881 the Muskoka and Nipissing Navigation Co. took over the business, and in 1886, the Parry Sound Navigation Co. was acquired, the title of the merged companies being the Muskoka and Georgian Bay Navigation Co. In 1902 the Muskoka Navigation Co. was formed, to take over the business and to establish hotels. An hotel was built and the company was reconstructed in 1903, under the title of the Muskoka Lakes, Navigation and Hotel Co. Mr. Cockburn was Manager and Secretary of the Company at the time of his death, and had only returned from Gravenhurst, June 1, where he had been arranging for the season's business. He represented Muskoka in the House of Commons 1872 to 1882, and North Ontario, 1882 to 1887, and was recently spoken of as likely to be appointed to the Senate. At the funeral, June 4, the honorary pall bearers included J. S. Playfair, Toronto, President M.L.N. and H. Co.; G. T. Bell, General Passenger and Ticket Agent, G.T.R., Montreal; and among those present were representatives of the Eastern Canadian Passenger Association, the G.T.R., Huntsville, Lake of Bays and Lake Simcoe Navigation Co. The Eastern Canadian Passenger Association passed a resolution of sympathy with the family. The estate is valued for probate at \$38,300, of which \$28,300 is represented by stocks and shares almost entirely of the M. L.N. & H. Co.

Canadian Northern Ry. Construction.

The discussion on the erection of a joint station at Winnipeg, Man., for use by the C.N.R. and the G. T. Pacific Ry. continues, but no decision has been reached. The site suggested for such a depot is at Water St., where the C.N. Ry. has large property interests. H. Sutherland, Executive Agent, when asked about recent purchases of land in the vicinity, stated that the company had all the land it required for station purposes. At a meeting of the Winnipeg Board of Works, June 13, application was made to close portions of certain streets in the Fort Rouge district, on both sides of which the C.N.R. owns the land, so as to utilize the whole area for yards and terminal facilities.

The extension from Emerson to Vassar or Sprague, of which some 16 miles has been constructed, will be pushed to completion. The present track end is at Ridgeville, and the construction of another 35 miles is necessary to complete the line. The completion of this line would enable the company to take grain from the whole of southern Manitoba to Port Arthur, without going to Winnipeg, shortening the haul by about 25 miles.

The main line has been laid into North Battleford, Sask., and a train service has been placed in operation.

Grand Trunk Pacific Ry.

In giving a summary of the report of the Transcontinental Railway Commissioners in our last issue, upon the surveys in progress for the Eastern Division of the G. T. Pacific Ry., decimal points were omitted in quoting the figures relating to the gradients. The gradients obtainable, as reported by H. D. Lumsden, Chief Engineer, are 0.4% east bound, and 0.6% west bound. In the stretch between Edmondston and Weymontache, 132 miles, the gradients east bound will not exceed 0.4%, and 0.6% west bound, and not 1 and 6% as stated. In the section of the re-

port dealing with the cost per ton of the respective lines prepared by M. J. Butler, Assistant Chief Engineer, the ten daily trains assumed are for the purpose of comparison only, as is usually the custom in valuing reduction on grades and similar improvements on high-class railway service. The cost per train mile quoted is that given in the report of the Department of Railways and Canals for 1903, and does not refer in any way to the amount earned per train mile, which is entirely another matter. The figures given are based entirely on the cost per train mile and not the cost likely to be charged for the service.

Three survey parties are in the field in central New Brunswick working on improved lines between Fredericton, Chipman, and Plaster Rock. The route favored by New Brunswick is from the Quebec-New Brunswick boundary down the St. John River to Fredericton, thence across the province through Chipman to Moncton. The Commissioners have under consideration tenders for the construction of an office building and residence for the Division Engineer at Nepigon, Ont.

The specifications for the Eastern Division, which were prepared by the commissioners in consultation with H. A. Woods, acting for the G. T. Pacific Ry., have been signed by the Governor-General, and have been printed. It is not expected that tenders will be invited until towards the end of this year or early in 1906. The specifications prepared will be used as far as possible for the Lake Superior branch and for the Western Division, which are to be built by the G.T.P. Ry. Co. The location plans of the line from Fort William to the proposed junction with the Eastern Division, a distance of approximately 200 miles, have been filed.

There are five parties in the field locating the Lake Superior branch from Fort William, Ont. Two parties are in the field making surveys for the branch to connect the Eastern Division of the G.T.P. Ry. with North Bay, Ont.

Speaking recently at Ottawa, Sir C. R. Wilson is reported to have said that from surveys made it was expected to get a gradient of 0.4% as far as the Rocky Mountains, and 1% through the mountains. The specifications had been approved of by the Government and it was expected to begin construction on the Lake Superior branch and the Prairie section during the summer.

The mortgage deed executed in connection with the guarantee of the 3% bonds by the Dominion Government for the construction of the Prairie section, has been signed by the Minister of Finance. The bonds were sold recently at 92½. The Dominion Parliament at its current session passed an act confirming the first and second mortgage bonds on the Western Division, and the first mortgage bonds on the Lake Superior branch.

G.T.R. Betterments, Construction, Etc.

Freight Yards at Turcot. The foundations of the roundhouse at the new yard at Turcot, Que., are being laid. It will be built of reinforced concrete, will have sixty stalls, and is expected to be completed in the fall. The freight yard will be laid out later, and is intended to be used as a classification yard for trains arriving from the west.

Hotel at Ottawa. In connection with the taking over of the Canada Atlantic Ry., it was recently stated by Sir C. R. Wilson, President, that a station building and large hotel would be built at Ottawa. We were advised June 21 that it was, as yet, too early to say what plans will finally be adopted in this respect.

Toronto Union Station. It is stated that plans for the new union station are in preparation at Montreal, and that they are subject to the approval of P. H. McQuigan

The plans for the laying out of the tracks in the new station and its approaches are being made by F. L. Somerville, Resident Engineer, Toronto.

Mimico Yards.—Considerable progress has been made in laying out the new yard at Mimico, Ont. It is expected it will be completed by the end of July.

Hyde Park to Kingscourt Jet. Double-tracking.—Good progress is being made on this work by Ross and Macrae, the contractors. It is expected to start tracklaying early in July, which will probably be completed in the fall. The section between Hyde Park and London will be a very heavy undertaking, as it involves the reconstruction of a number of bridges. It is not likely that it will be undertaken this year.

The Toronto Transportation Club held its regular quarterly meeting in the Canadian Freight Association's office, Union Station, June 2, when several applications for membership were accepted. At a special meeting at the same place June 23, a number of further applications were accepted and a committee was appointed to arrange for a day's outing to Niagara Falls, via Niagara, St. Catharines and Toronto Ry. and Navigation Co., in the latter part of July. The Club's membership is now in the neighborhood of 100.

Field Practice of Railway Location.—This is the title of a 250 page book by W. Beahan, B.C.E., Division Engineer, Chicago and Northwestern Ry., at Winona, Minn., published by the Engineering News Publishing Co., New York City. The perusal of the preface and a glance over the table of contents showing the principal matters treated in the eight chapters, gives the impression that the book is practical and popular, an impression which deepens into certainty as the book is read. Other and larger books deal at length with the mathematics of surveys, and of such questions of railway economics as have to be taken into consideration by engineers in charge of location. Mr. Beahan, starts out in his first chapter with a consideration of the road and discusses a number of questions that require consideration before survey work can be undertaken, from a common-sense point of view, and gives much information gleaned from personal experience and observation, and references to standard works on location, etc., which cannot fail to be useful to young engineers, as it is of interest to a non-professional reader interested in railroad construction work. Succeeding chapters deal with reconnaissance for route, preliminary survey, geology in its relation to topography, the locomotive, train resistance, the located line, records and cost of survey. The third chapter is a very useful one dealing as it does with the organization, subsistence and equipment of survey parties. The success or non-success of a survey party in the work given it to do depends a great deal upon the personal characteristics of the men composing it, but to a much greater extent upon the camp outfit and the cook.

The John Morrow Machine Screw Co., Ingersoll, Ont., has been authorized to do business in Quebec province, P. Bacon, 377 St. Paul St., being its agent.

The Great Lakes Steamship Co., owning the str. Haddington, is having a new steamer built in England, to carry 75,000 bush. of grain from the Upper Lakes to Montreal. Her dimensions will be: length, 256 ft.; breadth, 43½ ft.; depth, 20 ft.

The Canadian Rubber Co., of Montreal, which was previously carrying on business under an act of the old Province of Canada, has been incorporated under the Dominion Companies' Act, with additional powers. The incorporators are Sir H. M., H. A., and A. A. Allan, J. B. Leimont, C. F. Smith, F. C. Henshaw, H. M. Molson, H. Provost and A. Piddington.

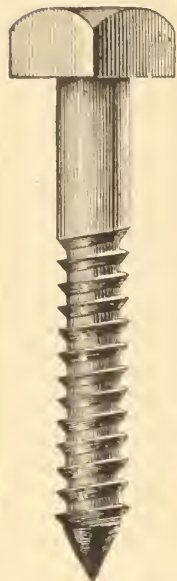
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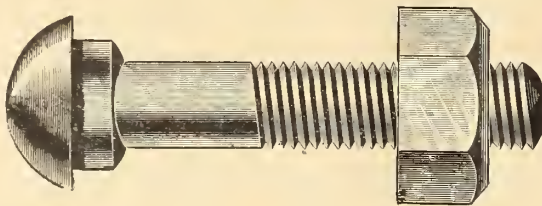
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Lv. Montreal	*9.00 a.m.,	*7.45 p.m.
Arr. Lowell	*7.29 p.m.,	*6.37 a.m.
" Worcester	9.04 "	*9.19 "
" Boston	*8.15 "	*7.30 "

VIA G.T.RY., AND WHITE RIVER JCT.

Lv. Montreal	*9.01 a.m.,	*8.40 p.m.
Arr. Lowell	*6.11 p.m.,	*7.17 a.m.
" Worcester	9.04 "	*9.19 "
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" Old Orchard	8.16 "	*8.42 "

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Canada Atlantic Ry.—It is understood that the formal transfer of the line to the G.T.R. will be made in Sept. A new mortgage, guaranteed by the G.T.R., securing \$16,000,000 of 4% consolidated first mortgage sterling bonds has been filed.

Central Ontario Ry.—Suit has been entered by the company against R. Weddell, T. G. Blackstock, and G. W. Bingham, the executors of the late S. Burke, and S. Johnston, to recover \$55,000 alleged to have been wrongfully paid. It is also alleged that certain bonds now held by the Molsons bank are the property of the company. This is another phase of the long series of law suits respecting the company's bonds and the ownership of the line.

Canada Southern Ry.—The annual meeting of the shareholders was held in St. Thomas June 7, and meetings of the subsidiary and other companies under the same control were held on the following day—the Canada and Michigan Bridge and Tunnel Co. at Windsor, Ont.; the Michigan, Midland and Canada Ry.; the Toledo, Canada Southern and Detroit Ry., and the Canada Southern Bridge Co., at Detroit, Mich. The officers and directors are the same in each case, viz.: President, W. H. Newman; Vice-President, H. B. Ledyard; other directors: W. K. and F. W. Vanderbilt, C. M. Depew, S. F. Barger, E. O. Wickes, J. Brown, H. McK. Twombly; Secretary, N. Kingsmill, K.C.; Assistant Secretary, D. W. Pardee; Treasurer, C. F. Cox; Assistant Treasurer, F. Middlebrook.

Esquimalt and Nanaimo Ry.—The formal transfer of the E. and N. Ry. to the C.P.R. was made at Victoria, B.C., June 8, when the old directors consisting of Jas. Dunsmuir (President); Jos. Hunter (Vice-President); Hon. C. E. Pooley, J. Little and J. A. Lindsay resigned, and a new board was elected. The new directors are W. Whyte, Second Vice-President, C.P.R.; A. R. Creelman, K.C., Chief Counsel C.P.R.; R. Marpole, General Superintendent Pacific Division C.P.R.; J. W. Troup, Superintendent C.P.R. Pacific Coast steamships; J. S. Dennis, C.P.R. Land Commissioner for British Columbia. W. Whyte is President, and J. S. Dennis Vice-President of the new organization. Under the sale the C.P.R. acquires the whole of the capital stock of the company, secures all its franchises, the land grant and property.

Fredericton and St. Mary's River Bridge Ry.—Under the powers of an act passed in 1904, the Dominion Government has taken over the franchise and property of this company. The bridge is one of the Gibson enterprises, and was built at a cost of \$400,000, of which \$300,000 was advanced by the Government which took a mortgage. No interest was paid on the bonds, and the act of foreclosure was passed, the company being given time to redeem. The Government also owns the Canada Eastern Ry., the Gibson railway which obtained an entrance into Fredericton across the bridge.

Grand Trunk Ry.—In an interview at Ottawa after returning from an inspection of the line, Sir C. R. Wilson, the President, said June 9, that he did not look upon the payment of dividends to the holders of common stock as an impossibility.

Intercolonial Ry.—The Minister of Railways, replying to a question in the House of Commons, stated that there had been expended on the I.C.R. to June 30, 1897, \$55,416,157.15, of which sum \$14,316,561.16 was expended on branches, extensions, connections and other subsidiary parts of the I.C.R., and the following amounts had been expended on capital account since: 1898, \$252,756.80; 1899, \$1,081,929.94; 1900,

\$3,255,348.29; 1901, \$3,633,836.57; 1902, \$4,626,841.05; 1903, \$2,254,266.68; 1904, \$1,880,856.60.

The Minister of Railways, June 14, made a statement regarding the I.C.R. finances in the House of Commons. He stated that it was estimated that the operations of the current financial year would show a deficit of \$1,800,000. This large deficit was partly due to the increase in wages, and partly to the expenditure necessary owing to the abnormally heavy snowfall during the winter. The cost of snow clearing was \$35,175, against \$11,000 in 1903-04. The maintenance of way showed an increase of \$182,000, the mechanical department an increase of \$621,000, and the traffic department of \$145,000, making altogether an increased expenditure of \$949,000 on these accounts

alone. The deficit of 1904 would bring the total loss for the year to over \$1,800,000.

Ottawa and New York Ry.—The New York State Railroad Committee has authorized the New York and Ottawa Rd. to issue a first mortgage of \$2,500,000, of which \$1,500,000 is to pay for the purchase of the railway and property of the N.Y. and O. Ry., which includes the stock of the O. and N.Y. Ry. Co. in Canada. The balance of the funds to be raised by the mortgage it is proposed to expend upon betterments.

Quebec and Lake St. John Ry.—The annual meeting was held at Quebec, recently, when the directors reported that the number of passengers carried during 1904 was 266,459 against 247,905 in 1903, and 321,391 tons of freight against 318,730 in 1903. The average earnings per passenger were 5½c. against

CANADIAN WHITE COMPANY LIMITED

SOVEREIGN BANK BUILDING, MONTREAL

ANNOUNCEMENT

THE CANADIAN WHITE COMPANY, LIMITED, is incorporated in Canada to carry on a General Contracting and Engineering Business, on similar lines to J. G. White & Company, Incorporated, of New York; J. G. White & Company, Limited, London, England, and the Waring-White Building Company, Limited, London, Eng. The Letters Patent of the Canadian Company were granted the latter part of May, and the organization of the Company is now being completed.

OBJECTS OF THE COMPANY.

The Canadian White Company, Limited, will carry on a General Contracting and Engineering Business and will undertake any Civil, Mechanical, Electrical, Hydraulic and Building work. It will be fully equipped to handle large construction contracts for Steam or Electric Railways, and will be prepared to design, build, equip and operate Electric Lighting Plants and Power Installations, Gas Works, Water Supply, Sewage Systems, Piers, Docks, Harbor Works, Office Buildings, Apartment Houses, Hotels, etc.

The Contracting and Engineering Departments of J. G. White & Company, Incorporated, of New York, will at all times be at the service of the Canadian Company, and the Company will further have the benefit of the experience of J. G. White & Company, Limited, London, England, and the Waring-White Building Company, Limited, London, England. This insures the Canadian Company, from its inception, the benefits and advantages to be derived from a very long and successful experience in the Contracting and Engineering business.

ORGANIZATION.

The Canadian White Company, Limited, will have upon its Board and as stockholders, strong representative business men well-known throughout Canada, and will be organized to carry on its business in the most thorough and expeditious manner.

GENERAL MANAGER.

The General Manager of the Company will be a prominent Civil Engineer with large experience in Railway Construction, etc., and who has held executive positions.

TREASURER.

Mr. H. P. Douglas, formerly Vice-President and General Manager of the Canadian Otis Elevator Co., Limited, will be Treasurer of the Company.

CONTRACTING AND ENGINEERING STAFF.

The Contracting and Engineering Staff will be sufficient at all times to carry out promptly and efficiently all works undertaken by the Company. The men for this Department will be competent engineers who have had long and thorough experience.

SUPERINTENDENT OF BUILDING CONSTRUCTION.

For this position, Mr. H. C. Hitch has been engaged. Mr. Hitch has been for several years connected with the Thompson Starrett Company, of New York, as Superintendent.

The organization as outlined above, with its allied interests, insures prompt and efficient attention to any contracting or engineering matter that may be brought to its attention.

BUILDING DEPARTMENT.

The Canadian White Company, Limited, intends making a feature of Building Construction, and is now prepared to contract for the better class of building work, such as Office Buildings, Apartment Houses, Hotels, Industrial Plants, Warehouses, etc.

The Company invites correspondence on all Contracting, Engineering and Building propositions and will be glad at all times to investigate and report upon any business that may be brought to its attention.

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LIMITED

(ACID OPEN HEARTH SYSTEM)

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The Company has General Stores at Winnipeg, Vancouver, Calgary, Edmonton, and other places where purchasers will find the best of goods at moderate prices.

Transportation by the Company's Steamers, brigades of boats and canoes throughout the Territories not traversed by railways.

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59½c. and 97c. per ton of freight against 86½c. in 1903. The directors had issued and disposed of at a satisfactory price \$150,000 of 4% prior lien bonds, out of an authorized issue of \$300,000. The money obtained was being used for the purpose of the construction of the La Tuque branch, upon certain betterments, and for additional equipment. Following are the officers and directors for the current year:—President, G. Lemoine; Vice-Presidents, W. Hanson, Montreal; J. T. Ross; other directors: C. A. Hanson, London, Eng.; P. Garneau, T. A. Piddington, Hon. J. Tessier, E. Beaudet, F. W. Ross, H. J. Beemer and E. Hanson.

Reid-Newfoundland Co.—Reports have recently been current that R. G. Reid and his associates, who form the Reid-Newfoundland Co., operating the railway system in the colony, a line of steamers from Port aux Basques to Sydney, N.S., and another line along the coast and to Labrador points; the street railway at St. John's, and the dock there, are negotiating for the sale of their numerous interests. It was stated that the first offer was made to the Newfoundland Government of the railway line, but as nothing was done private capitalists were approached. A number of United States capitalists, including H. M. Whitney, of Boston, recently visited the island and inspected the railway, with a view to acquiring the interests of the company in it. It is understood that the question of the purchase will be decided within the course of a month or so.

St. John Bridge and Ry. Co.—Local press reports state that the negotiations are practically completed for the taking over of undertaking of this company at St. John, N.B., by the C.P.R. The line is two miles in length, and gives the C.P.R. a connection with the Intercolonial Ry.

Temiscouata Ry.—Gross earnings for May \$13,657.23, against \$11,323.69 for May, 1904.

Toronto, Hamilton and Buffalo Ry.—At the annual meeting held in Hamilton, Ont., June 6, a satisfactory annual report was presented. Following are the directors for the current year: Sir T. G. Shaughnessy, D. McNicoll, Montreal; E. B. Osler, M.P., W. P. Torrance, N. Kingsmill, K.C., Toronto; W. K. Vanderbilt, W. H. Newman, C. F. Cox, New York; J. N. Beckley, Rochester, N.Y.; H. B. Ledyard, Detroit, Mich., and D'A. Scott, Ottawa.

The estimated receipts for May were \$57,783.25 against \$63,947.69 for May, 1904.

Canadian Northern Ry. Earnings, etc.

Gross earnings for April, \$282,900; working expenses, \$199,500; net earnings, \$83,400 against \$234,300 gross; \$176,200 working expenses, and \$58,100 net earnings for April, 1904. Gross earnings for ten months ended April 30, \$3,133,500; net earnings \$1,025,000 against \$2,551,100 gross, and \$843,300 net for same period 1903-04. Mileage increased to 1,876, against 1,350.

Approximate earnings for May, \$349,400 against \$276,100 for May, 1904.

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1903-04, from July 1, 1904:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July	\$4,398,833.95	\$2,949,181.81	\$1,449,652.14	\$131,125.02+
Aug.	4,474,237.64	2,946,307.21	1,527,930.43	93,827.93+
Sept.	4,220,876.03	2,952,068.47	1,268,807.56	66,541.75+
Oct.	4,743,961.93	3,177,848.02	1,566,113.91	87,913.10-
Nov.	4,751,970.43	3,082,395.69	1,669,574.74	191,593.56+
Dec.	4,562,142.45	2,899,473.62	1,662,668.83	81,523.57+
Jan.	3,252,501.93	2,829,833.46	422,668.47	65,016.44+
Feb.	3,056,094.05	2,753,922.73	302,171.32	219,630.51+
Mar.	4,134,961.50	2,950,134.46	1,184,827.04	331,972.76+
April	4,229,144.50	2,697,338.29	1,531,806.21	119,273.61+

\$41,822,744.41 \$29,238,503.76 \$12,584,220.65 \$1,212,592.05+
Approximate earnings for May, \$4,203,000 against \$4,088,000, for May, 1904.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for April, \$211,402.93; net earnings, \$62,001.03 against \$186,253.35 gross and \$59,616.81 net for April, 1904. Net earnings for ten months ended April 30,

\$728,210.44, against \$648,331.89 for same period, 1903-04. Approximate earnings for May \$254,551 against \$183,852 for May, 1904.

MINERAL RANGE RY.—Approximate earnings for May, \$58,895, against \$53,341 for May, 1904.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for April, \$654,863.27; net earnings, \$249,504.73, against \$474,765.00 gross and \$176,766.23 net for April, 1904. Net earnings for ten months ended April 30, \$3,591,202.11 against \$2,756,967.64 for same period 1903-04. Approximate earnings for May, \$626,450, against \$465,454 for May, 1904.

Canadian Pacific Railway Land Sales.

	Acres.	Amount.	
	1904-05	1903-04	1903-04
July	36,425.75	267,647.32	\$177,473.94
Aug.	15,669.90	263,339.45	88,735.88
Sept.	16,470.02	60,441.12	73,642.96
Oct.	23,792.84	15,950.07	104,843.47
Nov.	23,392.84	22,563.95	112,261.70
Dec.	32,196.59	30,146.00	142,583.40
Jan.	34,500.41	116,840.78	141,750.50
Feb.	27,593.56	14,729.69	116,278.76
Mar.	15,906.61	12,992.06	87,576.00
April	22,030.37	24,064.44	125,210.08
May	58,095.21	51,477.16	282,796.37
	305,984.10	880,199.04	\$1,453,153.06

Grand Trunk Ry. Earnings, Expenses, etc.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1905.	1904.	Increase.	Decrease.
Jan.	\$2,556,340	\$2,253,378	\$302,962	....
Feb.	2,163,683	1,649,525	514,158	....
Mar.	2,911,207	2,649,779	261,428	....
April	2,850,125	2,838,946	11,179	....
	\$10,481,415	\$9,391,628	\$1,089,787	....

GRAND TRUNK RY. CO.

The following figures relate to the individual lines, and are made out in sterling:

	1905.	1904.	Increase.	Decrease.
Revenue for April:				
Gross receipts	£466,000	£474,200	....	£8,200
Working expenses	295,400	292,100	£3,300	....
Net profit	£170,600	£182,100	....	£11,500

Aggregate from Jan. 1 to April 30:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£1,692,900	£1,522,000	£170,900	....
Working expenses	1,240,900	1,243,400	....	£2,500
Net profit	£452,000	£278,600	£173,400	....

GRAND TRUNK WESTERN RY. CO.

	1905.	1904.	Increase.	Decrease.
Revenue for April:				
Gross receipts	£99,000	£92,800	£6,200	....
Working expenses	78,000	73,400	4,600	....
Net profit	£21,000	£19,400	£1,600	....

Aggregate from Jan. 1 to April 30:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£367,200	£336,800	£30,400	....
Working expenses	310,800	297,200	13,600	....
Net profit	£56,400	£39,600	£16,800	....

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.

	1905.	1904.	Increase.	Decrease.
Revenue for April:				
Gross receipts	£20,600	£16,300	£4,300	....
Working expenses	16,400	15,900	500	....
Net profit	£4,200	£400	£3,800	....

Aggregate from Jan. 1 to April 30:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£93,100	£70,800	£22,300	....
Working expenses	74,600	63,900	10,700	....
Net profit	£18,500	£6,900	£11,600	....

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from Jan. 1 to May 31:

	1905.	1904.	Increase.	Decrease.
Grand Trunk	£2,199,243	£2,021,461	£177,782	....
G. T. Western	449,934	429,002	11,932	....
D. G. H. & M.	110,371	99,943	10,428	....

Total £2,759,548 £2,550,406 £209,142

A. R. Macdonell, contractor for the Temiskaming and Northern Ontario Ry., recently purchased three second-hand locomotives from F. M. Hicks & Co., Chicago, Ill. U.S. railway periodicals stated that the locomotives had been purchased by the Commission for the Temiskaming and Northern Ontario Ry.

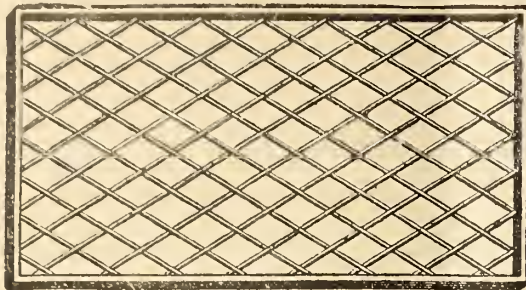
Master Car Builders' Convention.

The annual convention of the Master Car Builders' Association was held at Manhattan Beach, N.Y., June 19, 20 and 21. The report showed a membership of 607, and a balance of \$3,469.38 in hand. The membership fee for the current year is \$4 per vote. Several changes in the constitution were proposed, making it permissive for a larger number of desirable car department men to become members. After an address by E. A. Moseley of the Interstate Commerce Commission, the reports of committees were taken up. The committee on triple valve tests reported that two applications for tests of valves had been received since April 15, too late to be dealt with this year. The committee on brake shoe tests reported the testing of four brake shoes. The report of the committee on standard and recommended practices was discussed and dealt with at length. The recommendations on journal boxes and details were referred to letter ballot. Those on wedges were defeated. Those on brake beams were referred to letter ballot. The recommendations on grab irons and hand holds were given an extended discussion, and the following change made: The lower rounds on ladders with wooden sides are to be made straight and not with offset. The recommendations as thus modified, were submitted to letter ballot. The recommendations concerning centre plates were defeated. Recommendations on uncoupling arrangements for couplers were submitted to letter ballot. Those under high-speed foundation brake gear were adopted. The recommendations on permanent stake pockets were submitted to letter ballot. The question of temporary stake pockets was referred to the committee on loading long materials. The report of the committee was accepted as a whole and a committee was appointed to consider the height of brake staffs.

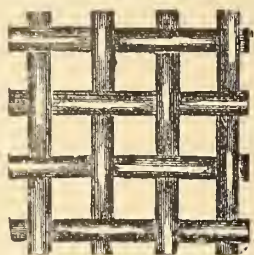
A topical discussion followed on the question, "Is not the method now commonly followed of securing yokes to couplers with rivets from 1-16 to ¼ in. smaller than the holes unmechanical and ineffective?"—the general opinion being that the present method was unsatisfactory, and it was finally decided to refer it to the standing committee on couplers to prepare designs and specifications. Another topical discussion was on the question of the best method of preventing or minimizing damage to the metal parts of the right of way from salt water drippings, but no action was taken. The report of the committee on air brake hose recommended that angle cock be placed 30 ins. from the centre of the car and be turned inwards at an angle of 30 degrees. It was also recommended that specifications be prepared especially adapted for woven hose. The report was approved and its recommendations will be submitted to letter ballot. Other committees reporting were those on M.C.B. couplers, revision of rules for loading long materials, arbitration, revision of passenger car rules, truck arch bars, safety appliances, steam line connections, tank cars, stenciling cars, safety chains. Other topical discussions took place on the establishment of a standard height from top of rail to centre of drawbar for passenger cars; the advisability of using malleable iron for wearing surfaces; breakages of flange on cast iron wheels; higher breaking power of freight trains.

The officers for the current year are:—President, J. Becker, Supervisor Yazoo and Mississippi Valley Rd., Icland, Miss.; First Vice-President, W. E. Fowler, Master Car Builder C.P.R., Montreal; Second Vice-President, G. N. Dow, Master Car Builder Lake Shore and Michigan Southern Rd., Cleveland, Ohio; Third Vice-President, R. F. McKenna, Master Car Builder, Delaware, Lackawanna and Western Rd., Scranton, Pa.; Treasurer, J. Kirby; members of Executive: H. M. Carson, G. W. Wildin, T. H. Curtis.

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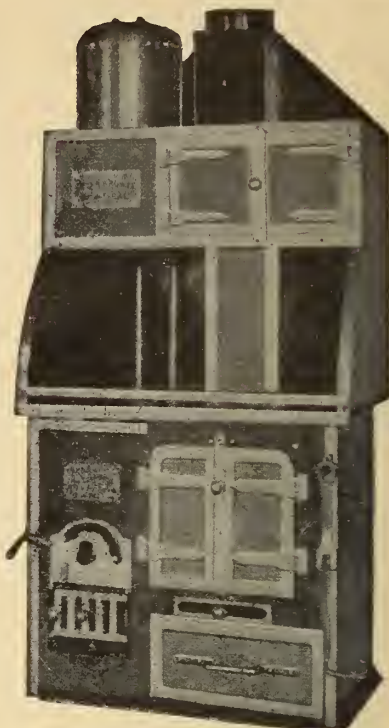
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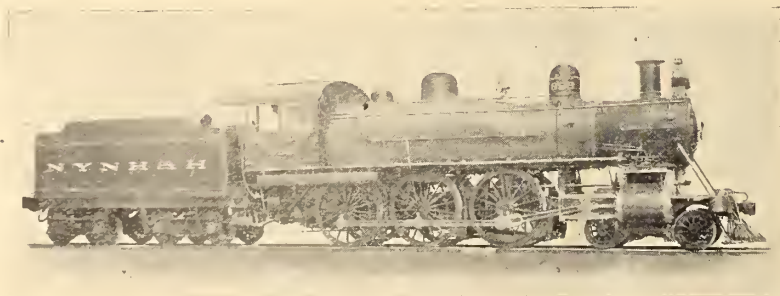
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Master Mechanics' Convention.

The annual convention of the American Railway Master Mechanics' Association was held at Manhattan Beach, N.Y., June 14, 15 and 16. There were present about 300 members, some 15% higher than any previous record. P. H. Peck, President, referred to the negotiations that had taken place respecting the proposed consolidation of the Master Mechanics' and the Master Car Builders' Associations, but at a joint meeting of the executive committees of both associations it was the unanimous opinion that nothing could be gained by any closer relations than now exist between the two associations. At the last convention it was proposed to procure a fund not exceeding \$5,000 for the purpose of enabling a special committee to conduct a series of tests and experiments concerning the value of varying proportions and dimensions of heating surface, grate surface, and such other important features of boiler design. There is a fund now exceeding \$3,000 for use this year, and arrangements had been made for a locomotive of modern design. The Purdue University plant will be available in the fall. The necessary steps had been taken for the appointment of representative members in accordance with the action of the Association at its last year's convention, and already the number of such representatives appointed was very gratifying. The secretary reported the membership to be 738 active, 17 associate, and 38 honorary members. The financial statement showed a balance of \$1,500 in hand. The membership fee for the year was fixed at \$5.

The committee on the proper loading of locomotives presented a report consisting largely of extracts from replies received to a circular of inquiry sent to members asking "What are the factors that affect economical loading of locomotives?" These factors vary but slightly in the opinion of a large number of replies, and consist principally of gradients, curvatures, quality of coal, speed, conditions of track, weather conditions, and density of traffic. The condition of the locomotive was also mentioned as a factor in some of the replies, and it seems in general, both from the replies and the discussion, that local conditions were of great importance. In the discussion, H. H. Vaughan, Superintendent of Motive Power, C.P.R., requested information concerning the practice of the members in regard to a reduction of rating for locomotives in poor condition. This request brought out the information that in some cases there was no provision made for a lower rating, but that some roads had a series of ratings amounting to certain percentages of the maximum which were given to locomotives which had finished certain percentages of the required mileage. This, however, did not seem to be general practice.

The report of the committee, of which H. H. Vaughan is a member, on locomotives of the Pennsylvania Rd. at the St. Louis Exposition, stated that tests have been finished on eight locomotives and that the results would be available in a short time. The committee was continued.

The committee on locomotive front end, formed to carry to completion the tests outlined in its report to the convention of 1903, reported through H. H. Vaughan, its chairman. An individual paper by H. H. Vaughan on "The value of superheat steam in locomotive work, called forth, the Railway and Engineering Review says, expressions of appreciation for its completeness and value from several of the members. C. A. Seley called attention to the fact mentioned in the paper that no loss can be expected by the use of superheaters. This paper was but briefly discussed because its completeness offered but little chance for discussion. It was suggested by one member that superheating, because of

its economy in coal, might offer a chance of aiding the work of the fireman. Ed. Sauvage, of the Eastern Railway of France, a visitor to the convention, and a delegate at the recent International Railway Conference at Washington, stated that in France the matter of superheating was just being undertaken and that he thought the results shown in this paper would give it a large impetus in the near future. H. H. Vaughan, in answering a few questions, stated that he thought a superheater engine which gave the same economy as a compound was preferable to the latter because of the large amount of trouble given by the compounds in cold weather.

A report on the shrinkage allowance for tires was presented by the committee, of which J. E. Muhlfeld, of the Baltimore and Ohio Rd., formerly Superintendent of Motive Power Intercolonial Ry., was a member, and was followed by a general discussion. Wheel centres, it was stated, are being made too light, especially in the rim. The committee was continued and instructed to include the subjects of wheel centre design and tire fasteners in their investigations. The paper on motive power terminals brought out many interesting points concerning practices in different sections of country. W. D. Robb, of the G.T.R., said it was their practice to put heating pipes around the pit rails and centre of turntables, to prevent trouble with snow. Designs presented in the paper were criticised by several members. One member objected to the use of mechanical ash-handling devices because of trouble in winter, while others reported them most satisfactory and economical.

The officers for the current year are:—President, H. F. Ball, Lake Shore and Michigan Southern Ry.; First Vice-President, J. F. Deems, New York Central Rd.; Second Vice-President, W. McIntosh, Central Railroad of New Jersey; Third Vice-President, H. H. Vaughan, C.P.R.; Treasurer, A. Sinclair; Executive Committee: C. A. Seley, G. W. Waldin, A. E. Mitchell, two years; A. E. Manchester, J. F. Walsh, and F. H. Clark, one year.

Babcock & Wilcox, Ltd., Montreal, report the following among recent orders for their water-tube boilers. The Dominion Government last fall installed 4 B. & W. marine boilers of 1,125 h.p. in the icebreaking steamer Montcalm, which has been employed on the St. Lawrence during the past winter. Among other recent orders are the following: C.P.R. Angus shops, Montreal, 1,400 h.p. additional, equipped with Babcock patent superheaters and automatic chain grate stokers. Winnipeg Electric Ry., 2,000 h.p. additional equipped with Necmes patent shaking grates. South-Western Traction Co., London, Ont., 900 h.p. Singer Manufacturing Co., St. John's, Que., 1,625 h.p. C.P.R. shops, Winnipeg, 1,250 h.p. with superheaters; C.P.R. Winnipeg hotel and station, 800 h.p. Central Electric Co., 200 h.p. additional. J. R. Booth, Ottawa, 2,000 h.p. boilers and superheaters. Winnipeg city water and electric light plant, 500 h.p. additional, equipped with Babcock patent superheaters and automatic chain grate stokers. Dominion Coal Co., Glace Bay, N.S., 2,500 h.p. Belgo-Canadian Pulp and Paper Co., Ltd., 500 h.p. F. W. Bird & Son, Hamilton, Ont., 75 h.p.

The Imperial Limited, the C.P.R. express from Montreal to Vancouver, was put on the run for the season June 4.

The locomotive equipment for the G.T. Pacific Ry. will probably be of four types, suited to the requirements of the different sections of the line. It is stated that they will be uniform with those of the G.T.R., and that probably a number of the G.T.R.'s older locomotives will be transferred to the G.T. Pacific Ry. for construction purposes.

C.P.R. Betterments, Construction, Etc.

Branch to Stratford.—The question of a branch line from the line under construction between Guelph and Goderich, into Stratford, Ont., continues to be the subject of discussion. The city council offers to submit a by-law for \$30,000 to pay the cost of entrance into the city, but the C.P.R. asks for free right-of-way and payment of all expenses arising from damages and the raising of streets. A satisfactory route has been surveyed. There is an agitation in the city and the district, which would be traversed by the branch, in favor of an electric line, and local reports state that the C.P.R. is agreeable to the construction of an electric line, but that certain local interests are strongly in favor of a steam railway.

Second Track Work near Toronto.—The C.P.R. has laid a second track on its freight line between North Toronto and Toronto Junction, and between the end of the yard at Toronto Junction and Lambton.

Toronto-Sudbury Line.—Good progress has been made with the line between the transcontinental line at Romford, Ont., and Bolton, on the Toronto-Owen Sound line. J. W. Leonard, Manager of Construction, is reported to have stated in an interview at Montreal June 26, that there were 4,000 men employed on construction, that seven steam shovels were engaged on the grade, and that 80 miles of grading had been completed, and that it was expected to have the whole line ready for tracklaying in 1907. The contract for the line southerly from Romford to Byng Inlet was let to Foley Bros., and Larson, and G. S. Deeks & Co. have a contract between Bolton and Parry Sound.

The located line of this branch and that of the James Bay Ry. overlap at a number of points, and G. A. Mountain, Chief Engineer of the Board of Railway Commissioners, is engaged in endeavoring to adjust the matter.

Fort William-Winnipeg Second Track.—We were advised June 17 that it was not then possible to give any information in regard to this projected work.

Winnipeg Shops. The new shops at Winnipeg are practically completed and it is expected to transfer the whole of the work to them during July.

Moose Jaw to The Elbow.—A letter from W. Whyte, Second Vice-President, to the Moose Jaw, Assa., Board of Trade, contained the statement that a survey would be made for a line from Moose Jaw to The Elbow of the Saskatchewan River, a distance of about 200 miles. A late report from Moose Jaw states that the survey has been started.

Strathcona to Edmonton.—Plans have been filed for the proposed extension of the Calgary and Edmonton Ry. from the present terminus at Strathcona into Edmonton, Alta. The plans show a line from Strathcona station northwesterly to the river at Legal Ave., thence across the river to the foot of 10th st., thence to the undivided block of the Hudson's Bay Co.'s land north of Jasper Ave. The plans do not mention a bridge, but connection between the points named on the plan could only be made by a bridge 1,150 ft. long, and 220 ft. high.

Diversion at Palliser.—The diversion of the transcontinental line at Palliser, B.C., 2½ miles, has been completed. The work involved the construction of a tunnel, the erection of a bridge, and the shifting of the track, the object being to avoid a bad crossing of a mountain creek.

Pitt River Bridge.—Concrete piers are being erected at a cost of about \$10,000 to replace wooden piers of the bridge over Pitt River. The B.C. General Contract Co.,

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Vancouver, has the contract. The steel superstructure, it is expected, will be placed next year.

Kootenay Central Ry.—W. Whyte, Second Vice-President, is reported to have stated in a recent interview at Nelson, B.C., that construction will be commenced on this projected line from Golden to Fort Steele, B.C., during the present year. Construction would be started at Golden.

The Robb Engineering Co., Amherst, N.S., has received an order from the Dominion Coal Co. for two 100-horse power Robb-Mumford boilers.

The International Water Lines Association has issued its second list of passenger fares, via through combination water routes for the season of navigation of 1905.

The Prince Edward Island Ry. rolling stock—passenger, freight and stock cars—are being equipped with M.C.B. couplers, which are being supplied from the Intercolonial Ry. stores at Moncton, N.B. The work is expected to run into the next fiscal year.

"I have here," said the amateur inventor, as he extracted a small model from his grip, "a device that will warn the engineer of a train when anyone is crossing the track."

"No good," rejoined the railway manager. "It's the party crossing the track that requires the warning."

The Board of Railway Commissioners will hold the following sittings in Western Canada during Sept. for the hearing of matters specially affecting the West: Fort William, Ont., Sept. 7, 8 and 9; Winnipeg, Sept. 11, 12 and 13, and New Westminster, B.C., Sept. 19.

The G. B. Meadows Iron, Wire and Brass Manufacturing Co. has purchased a site at the corner of Wellington and Draper streets, Toronto, and is erecting a new factory there. The company has been registered in Quebec, under the provisions of the act relating to extra-provincial corporations.

The Great Lakes and St. Lawrence Rate Committee has been advised by the Lake Michigan and Lake Superior Transportation Co. that, pending the construction of its new equipment it has suspended active operations, and for the present a portion of its territory in the Lake Superior district will be served from Chicago and Milwaukee by the Graham and Morton Transportation Co.

The report of the directors of the Newcastle Harbor Co., for the year ended June 19, presented at the annual meeting of shareholders held at Newcastle, Ont., that day, showed that the company's elevator received less grain for storage than in the previous year, owing largely to the farmers going in more largely for stock raising, and there was a considerable falling off in the receipts of coal. The main cause of the falling off in the coal receipts has been that there is not sufficient depth of water to enable large schooners or barges to get in. The expenditure also showed an increase, due to repairs to lighthouse and elevator. The repairs to the wharf and breakwater by the Dominion Government had made satisfactory progress. When the harbor had been dredged and a new cut made it was expected that a satisfactory increase of business would be shown. It was stated that 41,035 bush. of grain were stored and 77 vessels made calls. The total receipts were \$997.56 and the expenditure \$889.17. Following are the officers and directors for the current year: President, Dr. R. McIntosh; Vice President, W. Foster; other directors: W. Grose, H. Murray, K.C., Toronto, and W. W. Tamblin, Bowmanville, Ont.

Sink-Holes on the G.T.R.

By Leslie A. Waterbury.

The G.T.R. has experienced considerable difficulty in many places in Michigan with sink-holes. One of these is located between Haslett Park and Lansing, near mile-post 107. These sink-holes are caused by small lakes which are covered with a layer of peat bog, so as to present an appearance of ordinary marsh land. The formation of such bogs is described by N. S. Shaler, in the Tenth Annual Report of the U.S. Geological Survey. The diagram illustrating this is taken from the same report. The formation of the crust BB is caused by a growth of water moss, which requires no under soil for its roots to penetrate, the species of sphagnum being the most

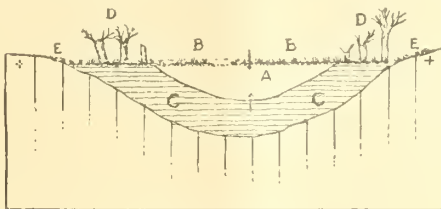


Fig. 1. Showing Formation of Peat Bog.

prominent of this class of plants. The growth begins near the shore and gradually extends over the surface, until the entire pond has become covered with a dense mat, which increases in thickness, collecting soil washed down from the surrounding hills, thus affording opportunity for other vegetable growths, and in this way a considerable crust is formed. In the diagram, A represents the remaining portion of the water sea; CC represents muck, or a peaty mass derived from the disintegration of the surface layer; DD shows the solid part of the swamp, bearing trees near the shore, and further out bushes; EE indicates climbing bog, which may be absent; + shows the original water level, and the arrows indicate the direction of growth of the upper and under layers of peat.

In the case of the sink hole near Haslett Park, the pond has a crust about 6 ft. thick. The upper portion of the crust is quite firm and solid, but gets softer beneath, so that the bottom, which is in contact with the water, is soft and spongy. Upon this crust there is a considerable growth of trees and bushes. Some of the trees are of very good size, yet their roots do not penetrate much below the surface, but spread out in the upper portion of the peat crust. As would be expected,



Fig. 2. Cross Section Showing Original Construction over Peat Bog.

from the character of its formation, the crust covering the lake is light, and is composed largely of organic matter. Three air dried samples analyzed at the Agricultural College were found to be composed of the following ingredients: Sample 1, taken south of hole and 1 ft. from surface—Organic matter, 79.06%; moisture, 8.92%; mineral matter, 12.007%; total, 99.987%. Sample 2, taken 100 ft. south of hole in crust, from ground exposed by a tree which had been blown over. Moisture, 10%; organic matter, 80%; mineral matter, 10%; total, 100%. Sample 3, taken from water at north side of hole. Moisture, 10.57%; organic matter, 83.71%; mineral matter, 5.691%; total, 100.001%.

The specific gravity of this crust is very nearly 1. However, the material as it is around the sink-hole has a considerable supporting power. Pieces of it which were placed in water in a frozen condition floated but generally sank after thawing. This is perhaps due to the fact that marsh gas is generated by the decomposition, and also to the fact that the crust would withstand tension so that any load coming upon the surface would not depend entirely upon the floating power of the crust beneath for its support.

It was upon this bog that the road was originally built. To add to the supporting power of the crust, a large quantity of timber was first laid upon the surface, forming a corduroy foundation some 20 ft. deep. Upon this foundation the embankment and the

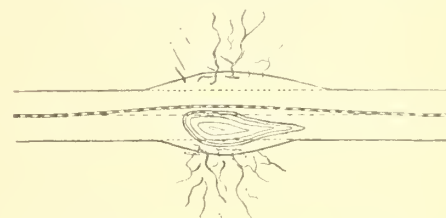


Fig. 3. Plan of Sink Hole Showing Distortion in Alignment, and Cracks at Sides.

track were placed. The construction is shown in Fig. 2. But little difficulty was experienced at this point until preparations were begun for laying double track. At this time, the dirt, which was dumped beside the old track for the purpose of widening the embankment, gradually sank out of sight, leaving a pond of water, at the same time forcing the crust apart and pushing the track and right-of-way fences out of line. The plan of the sink hole, fig. 3, shows the alignment of the track, and approximately that of the fences as it was Nov. 26, 1902. The track had been further out of line than the diagram shows, but had been thrown back before the displacement was measured. The broken lines show the original positions of track and fences, and the full lines show them after being distorted. The portion of the track which had been moved the most was 19½ ft. from its original position when measured. The portion of the fence which had been displaced most was 38 ft. from its original position.

The material used for widening the embankment was till, a mixture of sand and clay, and was much heavier than the peat crust. This filling carried down with it not



Fig. 4. Cross Section Showing Displacement of Original Embankment, and Displacement of Muck by Filling, Causing Crust at the Sides to be Raised.

only the crust beside the track, but also the embankment upon which the track rested. It also broke the crust so that the track sank under the action of traffic. Whenever a train passed, the track would sink four or five tenths of a foot, and would then have to be jacked up and filled in beneath before traffic could be resumed. Cinders were used for the filling directly under the track, on account of lightness, while the filling at the side was continued with till.

The sinking of the track caused the peat layer beneath to break away from that which



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The differences between the G.T.R. and its telegraphers have been adjusted after several conferences between C. M. Hays, second Vice-President and General Manager, and F. H. McGuigan, Fourth Vice-President, and representatives of the Order of Railroad Telegraphers. A new schedule is being prepared on the basis of the terms arranged.



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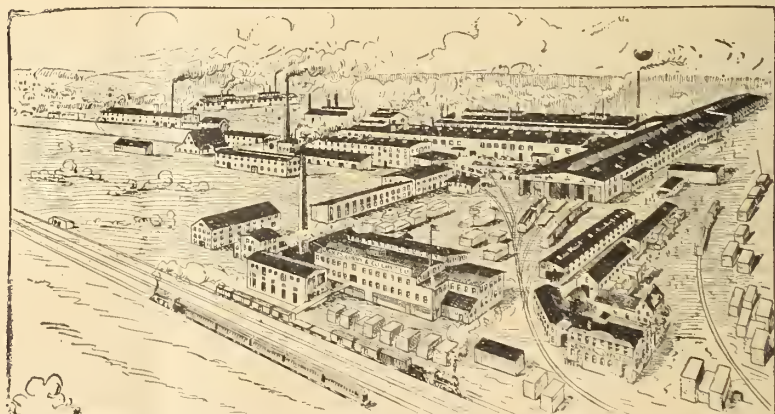
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cent on each side (fig. 4). Then the filling of the heavy material, together with the consequent displacement of the muck beneath, caused the peat crust on each side to be floated upward. The amount of vertical lift near the right-of-way lines was at least 6 ft. Thus a cone was formed with a radius of from 250 to 300 ft. The lifting of the crust developed cracks from 1 to 2 ft. wide near the track, and radiating from the centre to the base of the cone, somewhat as shown in the plan. A section of the hole along the track is shown in fig. 5, which is taken from the company's profile. The bottom was determined by soundings. The profile shows the hole to be about 28 ft. deep.

The portion of the pond over which the crust first broke extends from about station 120 to station 124. Into this opening 30,000

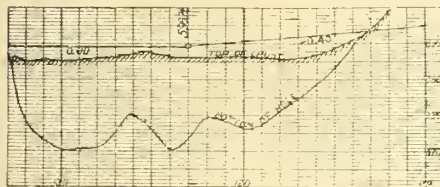


Fig. 5.—Profile Showing Section of Sink-Hole along Line of Track.

cu. yds. of material was placed before the track stopped sinking. Between stations 115 and 120 the embankment was widened upon the top of the crust, as it was thought there would be sufficient support at that point. Since that time this section has also gone down, and has required 10,000 cu. yds. of material to form an embankment of sufficient width for double track. This filling has raised the crust on one side of the track, but not on the other. Over the remaining portion of the pond between stations 124 and 133 the embankment has been widened to its full width upon the peat crust, but it is the intention of the company to fill the hole beneath this next spring.

Filling placed in water assumes a flat side slope, but in this case it does not seem probable that it can be as flat as the slope of the cone, since the cone extends from 250 to 300 ft. on each side. If this cone which has been displaced were filled with till it would require from 14,000 to 15,000 cu. yds.; or, since the total amount which had been placed in the hole at that time was 30,000 cu. yds., about one-half of the total filling. The distance of the base of the cone from the bottom of the pond would be about 20 ft., so that it would be impossible to fill the hole in this manner with 30,000 cu. yds. It is therefore probable that there is quite a quantity of muck or semi-fluid material near the bottom of the lake, caused by the disintegration of the peat crust. This muck has been displaced by the heavier filling, and has been forced out on each side so as to lift the crust. The probable cross-section after this has occurred is shown in fig. 4. The diagram also shows about the amount which the track was displaced.

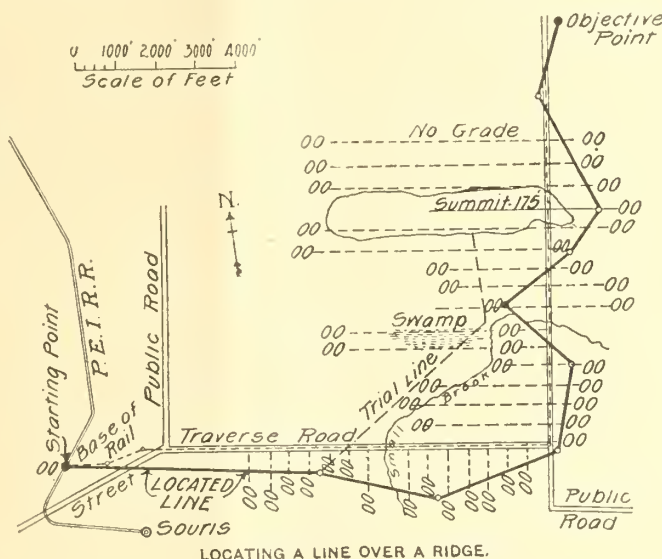
There are many other sink-holes in the vicinity of the one described, there being at least eight such formations within a distance of six miles. The largest of these is 55 ft. deep, and has already received over 60,000 cu. yds. of filling. It is the intention of the company to break the crust above these holes, a little at a time, and to continue the filling until the track shall have a solid foundation.

If coarser material, such as rock or coarse gravel were obtainable for filling, or if the present material should be placed in bags, a much smaller amount would be required, since it would not be floated out like till, which is in a finely divided state. However, under the present conditions the method used is probably the most economical.

Locating a Line Over a Ridge.

J. A. Macdonald writes from Hermanville, P.E.I.: "During the past season I was engaged in locating a branch line from Souris, on the Prince Edward Island Ry., to a point some 13 miles east. No great engineering difficulties were encountered after the first 4 or 5 miles were located, but these 5 miles presented some difficulties owing to a high natural ridge, which crossed our path some two miles out. This ridge was 175 ft. higher than base of rail—our starting point—and the maximum gradient was $1\frac{1}{4}\%$, so that to get over the ridge without too much round-about, or too deep a cutting, was somewhat of a problem. The accompanying plan will explain the methods used and the trial and final location of the route.

"The first thing we did was to traverse the route as shown by dotted lines on the road. For this work I used a 14-inch vernier compass. The leveller followed, taking levels on each hundred feet. I may say that this was done after making a trial line, shown by dotted lines on the plan. Having taken the levels past the ridge or summit, cross sections were taken at each 500 ft., running in on either side of road till grade was obtained, a profile having been made from the traverse and levels and the maximum gradient put on.



A. A. Burke has been appointed town ticket agent of the C.P.R. at Mount Forest, Ont., succeeding A. McKean, resigned.

D. McNicoll, Vice-President C.P.R., left Montreal June 26, for a trip to the Pacific coast, intending to be absent about a month.

C. A. Pipon, Passenger Agent for Ontario for the International Mercantile Marine Co., has gone to Jersey, Channel Islands, where his father, General Pipon, is seriously ill.

G. H. Smith, heretofore Assistant General Freight Agent Western Division C.P.R., at Calgary, Alta., has been appointed Assistant General Freight Agent, Central Division, at Winnipeg.

The appropriation made by the Dominion Parliament for the financial year 1905-06, for rolling stock for the Intercolonial Ry., is to provide 12 passenger locomotives, 10 freight locomotives, three switching engines, 130 ballast cars, four snow plows, and two flangers. Nothing has been voted for the P.E.I. Ry.

"Having finished the cross-sectioning, as shown by the dotted lines on the plan, a map of the locality was made and grade points marked thereon. Now we had our latitude and complete data, and began running the final line, and in doing so sought the grade points as near as might be, as it appears on the plan herewith. Now we had a line almost at grade throughout, with but little fill or cut, and something like a mile longer than our first trial line.

"By looking at the plan it will be seen that our trial line ran into a swamp situated on the summit of a ridge—a very rare occurrence—which involved a 12 to 15 ft. cut through the swamp. This was not a very good location for a railway line, and no lower ground could be obtained to the left, which was good reason for abandoning it. The work of cross-sectioning these four miles took our party a week, and we believe was a week well and economically spent."—Railway Age.

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Grain Elevator Notes.

The Barnett and Record Co., elevator builders, Minneapolis, Minn., has been authorized to do business in Quebec, as an extra-provincial company. W. H. Tamm of St. Henri, Montreal, is its principal agent.

The International Elevator Co.'s elevator at St. Boniface, Man., which was completed in May, is situated in the outer angle formed by the crossing of the C.P.R. and the Canadian Northern Railway. The company was formed by the consolidation of the Colonial Elevator Co. and the Andrews-Gage Grain Co.

Work has been commenced on the new flour mills at Keewatin, Ont., for the Keewatin Flour Mill Co. The mill will have a capacity of 3,000 barrels a day. The company proposes to erect a 500,000 bush. elevator at the mill, and will also build a number of small elevators throughout the Northwest for the purpose of wheat buying.

The McHugh-Christensen Co.'s elevators which number 20, and are situated at various points on the C.P.R. line in Manitoba, are reported to have been sold to McLaughlin and Ellis, who already own a number of elevators throughout the same territory. The elevators have a capacity varying from 25,000 to 60,000 bush. It is also reported that McLaughlin and Ellis have resold those of the McHugh-Christensen elevators at the points where they previously had elevators to the Royal Canadian Flour Mills Co.

The G.T.R. has leased a site at Tiffin, about two miles east of Midland, Ont., to E. R. Bacon, of Midland, and Chicago, Ill., for the purpose of erecting an 800,000 bush. elevator thereon. Work is to be started on the building at once, and it is expected to have it completed in time for the handling of the present season's crops. A local press report states that the elevator proper will be constructed of steel, and the engine house, etc., of brick, and that in connection with the work the G.T.R. tracks will have to be straightened out, involving the removal of a bank 180 ft. wide and 13 ft. deep. F. Kontcher was recently in the town making arrangements on behalf of E. R. Bacon for proceeding with construction.

The Western Canada Flour Mills Co. has been organized in Toronto, and is an amalgamation of the A. Kelly Milling Co., Brandon, Man., and the Lake Huron and Manitoba Milling Co., of Goderich, Ont. The new company proposes to erect a 4,000 barrel mill at St. Boniface, Man., and to erect a complete line of elevators throughout Manitoba. The capacity of the Brandon and Goderich mills is 2,500 barrels of flour and 500 barrels of oatmeal a day, and 26 elevators are operated in connection. The officers and directors of the new organization are: President, A. Kelly, Brandon, Man.; Vice-President and General Manager, S. A. McGaw, Goderich, Ont.; Treasurer, E. J. Barclay, Brandon; Secretary, A. Hills, Toronto; other directors: W. J. Lindsay, Brandon; J. J. Wright, L. Lukes and A. J. Mitchell, Toronto.

Michigan Central Rd.—W. S. Kinnear, heretofore Assistant General Manager and Chief Engineer, has resigned the position of Chief Engineer. He will have charge of the construction of the tunnel under the Detroit River. He has also been elected Vice-President of the Indiana Harbor Rd., a subsidiary company.

The Canadian Freight Association at its last annual meeting left the appointment of Secretary-Treasurer and Manager of the Car Service Association to the executive committee. John Earls is continuing to act in both capacities, but it is stated that in the near future there will be two appointments. J. E. Duval, at present Chief Inspector of

Accidents, etc. for the Board of Railway Commissioners, will, it is said, be Manager of the Car Service Association. The selection for Secretary-Treasurer of the Canadian Freight Association has not been announced, but it is believed that there will also be a change in the appointee for that position.

ELECTRIC RAILWAYS.

Canadian Street Ry. Association.

The quarterly meeting was held in Toronto, June 2 and 3, the President, W. G. Ross, Managing Director of the Montreal Street Ry., in the chair. The others present were:—Dr. S. Ritter Ickes, Treasurer, Grand Valley Ry.; C. K. Green, Traffic Superintendent; G. H. Levy, Solicitor, Hamilton Cataract Power, Light and Traction Co.; J. E. Rothery, Superintendent International Railway Co., Niagara Falls, Ont.; C. E. A. Carr, General Manager London, Ont., Street Ry.; P. Dube, Secretary, D. McDonald, Manager, Montreal Street Ry.; T. J. McIntosh, Niagara, St. Catharines and Toronto Ry.; Col. H. H. McLean, K.C., Vice-President St. John, N.B., Ry.; J. D. McArthur, Superintendent, C. L. Wilson, Traffic Manager, Toronto and York Radial Ry.; W. H. Moore, Assistant to the President, R. J. Fleming, General Manager, J. M. Smith, Comptroller, J. Gunn, Superintendent, A. D. Grantham, Purchasing Agent, W. H. Nix, Head Roadmaster, Toronto Ry.; A. H. Royce, Vice-President Toronto Suburban Ry., and Acton Burrows, publisher of THE RAILWAY AND SHIPPING WORLD, the official organ of the Association.

The Executive Committee presented a report largely dealing with recent Provincial legislation, which was very fully discussed. The action of the New Brunswick Legislature in passing an act varying the contract between the St. John Ry. Co. and the city of St. John, and taking away certain vested rights of the company, was very strongly condemned, and the opinion was freely expressed that such legislation would effectually prevent the investment of capital in New Brunswick enterprises. A report was also presented from the special committee on freight rates. The committee on fenders asked for further time in which to report. A sample fender, of the cow catcher type, which W. H. Moore had had built on the plan of some he had recently seen on rural lines in the U.S., was displayed in the room and was fully discussed.

The following papers were read:—Parks and Park Amusements, by J. D. McArthur, Superintendent Toronto and York Radial Ry.; Commutation Tickets, by C. K. Green, Traffic Superintendent Hamilton Cataract Power, Light and Traction Co.; Freight Development on Interurban Roads, by E. F. Seixas, General Manager Niagara, St. Catharines and Toronto Ry.; Discipline of Street Railway Men, by J. E. Hutcheson, Superintendent Ottawa Electric Ry. The discussion on the last paper was left over until next meeting, but the others were very fully considered and much valuable information was given by the different members.

It was decided to hold the next quarterly meeting at St. John, N.B., in September, the date to be fixed by the Executive Committee.

The officers were all re-elected, it being thought that no change should be made as they had only been in office six months. They are as follows:—President, W. G. Ross, Montreal; Vice-President, W. H. Moore, Toronto; Executive Committee, C. E. A. Carr, London, Ont.; E. G. Evans, Quebec; D. McDonald, Montreal; Secretary-Treasurer, A. H. Royce, Toronto; Counsel, Col. H. H. McLean, K.C., St. John, N.B.

On the afternoons of both days the members witnessed the Ontario Jockey Club's races at the Woodbine, the Toronto Ry. Co's

official car being placed at their disposal. On the evening of June 3, the members attending the meeting and a number of other guests were entertained at a magnificent dinner at the King Edward hotel by the Toronto Ry. Co., W. H. Moore presiding. A number of toasts were proposed and responded to, and the evening was enlivened by vocal and instrumental music and other features which were most thoughtfully and hospitably provided.

Projects, Construction and Betterments.

Brantford and Hamilton Electric Ry.—The negotiations with the Hamilton, Ancaster and Brantford Ry. in connection with the construction of an electric railway between Hamilton and Brantford, Ont., for which both companies hold charters—the B. and H.E. Ry., a Dominion one, and the H.A. and B. Ry., an Ontario one—have not resulted in a definite agreement, and negotiations are off. The Brantford City Council has granted both companies rights of way into the city independent of the tracks of the Brantford Street Ry., which is controlled by the same interests owning the B. and H. E. Ry. See also Hamilton, Ancaster and Brantford Ry.

British Columbia Electric Ry.—A tentative agreement has been made between the company and the North Vancouver municipal council, for a railway and street lighting franchise. The franchise will be for 50 years, but the council may expropriate at the end of 10 years. The car line at present contemplated will extend from Lansdowne Avenue to the Capilano and Grouse mountain. A line is also contemplated from Steveston to New Westminster, and press reports state it will be gone on with as soon as possible after the electrification of the Vancouver and Lulu Island Ry., from Vancouver to Steveston, on which good progress has been made. Another improvement in contemplation is the double-tracking of the lines in the vicinity of Point Ellice bridge in connection with the Gorge extension. The Vancouver Power Co.'s tunnel at Lake Beautiful was declared open by the Lieut.-Governor June 10. This company is a subsidiary of the B.C.E. Ry. Co. (June, pg. 259.)

Chatham, Wallaceburg and Lake Erie Ry.—The first section will cover about 21 miles from Wallaceburg through the county of Kent to the southerly limits of Chatham, Ont., and will, it is anticipated, be completed during the current year. An extension from Chatham to Rondeau, on Lake Erie, is proposed to be undertaken next year. No contracts for construction will be let, the company proposing to do all the work itself. Work has already commenced on the Wallaceburg-Chatham section, and the line is expected to be opened by Nov. 1. The power house plant has been planned, and will be of the most modern type. The plant will include five water tube boilers, manufactured by the Canada Foundry Co., Toronto. The officers of the company are: President, G. W. Kipp, Towanda, Pa.; Secretary and Solicitor, E. W. Bell; Engineer, A. McDonnell; General Manager, W. N. Warburton, Chatham, Ont. A special meeting of shareholders was called to be held in Chatham June 20, for the purpose of authorizing the issue of bonds to provide for construction. (June, pg. 261.)

Chilliwack, B.C. Considerable capital has been locally subscribed for the construction of an electric line in the Fraser valley, in the neighborhood of Chilliwack, and an effort is being made to interest Vancouver capital. J. Rounsfell, Chilliwack, is the active promoter.

Edmonton Street Ry.—We are informed that beyond placing contracts for some of the machinery required very little has been



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For C.P.R. or C.N.R. lands apply at the land offices of said railway companies.

For lands owned by private individuals apply to the various real estate agents in the city.

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done. It is reported, however, that construction will be gone on with at an early date.

Hamilton, Ancaster and Brantford Ry.—After a lot of discussion and a number of provisional agreements between the contending parties, the Brantford, Ont., City Council decided to grant the company an entrance into the city independent of the tracks of the Brantford Street Ry. The corporation also gave the Brantford and Hamilton Electric Ry., which is owned by the same interests controlling the Brantford Street Ry., a right of independent entrance, if it is decided to construct that line. The H.A. and B. Ry. has obtained an extension of time for construction from the local councils, and C. D. Haines, who is conducting the negotiations, states that not only will the line be constructed to Guelph, but arrangements will be made with the owners of a charter there for the continuation of the line from Guelph to Owen Sound. (June, pg. 261.)

Hamilton, Grimsby and Beamsville Ry.—Notices were issued May 25 that the stations at Campden and Vineland would be closed and that the line between Beamsville and Vineland would cease to be operated. The company claims to have run this section of the line at a loss of \$7 a day, and to have been embarrassed by suits on the part of residents adjoining the line. The Lincoln county council also directed the moving of the tracks at certain points. The track will be taken up. (June, pg. 261.)

Hamilton Radial Ry.—The Wentworth county council has passed a by-law granting a franchise to the H.R. Ry. for the construction of a line from the corner of Main St. and Sherman Avenue, Hamilton, to Bartonville, Ont. The terms are \$50 a mile a year for three years; \$100 a mile a year for the next five years, and \$200 a mile a year thereafter; construction to be commenced by June 15, and completed by Nov. 1. (June, pg. 261.)

Levis County Ry.—The line is at present being operated by the Sequestrator appointed by the Quebec courts, but it is expected to be taken out of his hands early in July, on the completion of the reorganization. There are 10½ miles of track being operated, viz.: from Levis to St. Joseph de Levis, about 3 miles; from Levis to St. Romuald, about 6 miles, and about 1½ miles in the town of Levis. A. E. Sutherland is Sequestrator, and H. H. Morse, Superintendent.

London Street Ry.—An office building is to be built on the site of the old car barns on Dundas St. (June, pg. 261.)

Montreal and Southern Counties Ry.—The organization of this company, which has power to construct an electric railway from Montreal on the south shore of the St. Lawrence, was completed recently. The officers and directors for the current year being: President, H. A. Richardson; First Vice-President, S. T. Willett; Second Vice-President, F. D. Monk; Treasurer, J. W. Harris. Other directors: Hon. W. Mitchell, R. C. Smith, H. G. Elliott, W. B. Powell, T. Craig, Secretary, J. Walker; Auditor, G. D. Perry. (May, pg. 111.)

The Montreal Street Ry. Co. has purchased the whole of the property north of the C.P.R. track between St. Denis St. and the city boundary, and is applying to the Montreal City Council to have the street lines erased so that it may use the entire block for building purposes. A double track is being laid on Atwater Ave., with a view of completing another belt line. (Feb., pg. 71.)

Montreal Terminal Ry. Application is being made to the Montreal City Council for a revision of this company's contract, on the ground that it was forced to consent to

onerous terms in order to gain an entrance into the city. It asks to be placed on the same footing as the Montreal Street Ry. No action has been taken in the matter. The Maisonneuve council has approved of a contract with the company on similar terms to those granted to the Montreal Street Ry. (June, pg. 261.)

The Peterboro Radial Ry. proposes, according to press reports, to commence construction at an early date of an extension to Clear Lake, about 12 or 15 miles, but we were advised, June 21, that no decision has been arrived at about the matter.

Quebec and Saguenay Ry.—M. Workman, R. Forget, W. McL. Wallbank, W. G. Ross, of Montreal; A. R. McDonald, J. McCarthy, Hon. P. A. Choquette, Hon. E. B. Garneau, Hon. C. Langelier, G. Tanguay, N. Rioux, J. Cameron, L. A. Taschereau, W. Price, of Quebec, and A. Girard, of Marieville, Que., have been incorporated by the Quebec Legislature with this title to construct a railway from St. Joachim, the present terminal of the Quebec Ry., Light and Power Co.'s line, along the shore of the St. Lawrence River to Tadousac, with branch lines for the use of industries established in the interior. The capital of the company was fixed at \$1,000,000, and power was given to issue \$500,000 of preferred shares at not more than 6%. The head offices are at Quebec. At the organization meeting held June 6 the following were elected officers for the current year: President, R. Forget; Vice-President, Hon. P. A. Choquette; Secretary, J. A. McDonald. These, with the other promoters mentioned in the act of incorporation waited on the Quebec Government with a view of obtaining an assurance of a land subsidy. The Premier told the deputation that the province would do its share if the Dominion Government would give a subsidy. This aid is being applied for. This line is projected from St. Joachim, the terminus of the Quebec Ry., Light and Power Co.'s line, along the north shore of the St. Lawrence to the mouth of the Saguenay River, about 140 miles. It will open up a large area of country capable of great development, and will serve a present population of 35,000. A survey was made from St. Joachim to Murray Bay by E. A. Hoare, in 1895, for the Quebec, Montmorency and Charlevoix Ry. The first 11 miles from St. Joachim to Cap Tourmont will involve some heavy construction. It is proposed to obtain power from the Seven Falls of St. Ferreol, about six miles north of St. Joachim, the fall being 375 ft., and 6,000 h.p. will be developed.

Quebec Ry., Light and Power Co. The branch line to Beauport Asylum is expected to be completed early in July. (June, pg. 261.)

St. John Street Ry.—An extension of the double track on Pitt St., St. John, N.B., has been completed, and five additional cars have, in consequence, been placed on the lines in the city.

Southwestern Traction Co. It is proposed to make a start on construction on the line from St. Thomas to Port Stanley, Ont., at once. A switch has been laid to the M.C.R. tracks to facilitate the transfer of construction material. The agreement with St. Thomas for a right of way through the city has been passed by the council, and will be submitted to the ratepayers on an early date. (May, pg. 207.)

Toronto and York Radial Ry.—The station at Richmond Hill, Ont., was opened May 24; that at Newmarket, May 31, and the station at Aurora was expected to be opened by the end of June. Construction work is being proceeded with from the present terminus towards Lake Simcoe, and it is expected to have the line completed to Jackson's Point in the fall.

A branch is projected from near Thornhill to Markham, and a preliminary survey has been made. (June, pg. 261.)

Winnipeg Street Ry.—Members of the city council and several of the directors of the W.S. Ry. Co. drove over the route of the proposed line from Maryland bridge to the new suburban park recently, and a final decision as to the route will be made shortly. Construction will be commenced immediately the final decision has been made. Work has been commenced on the Kildonan extension from Bird's Hill Road. (June, pg. 263.)

Electric Ry. Finance, Meetings, Etc.

British Columbia Electric Ry.—Railway earnings for April—Vancouver, \$20,228; Victoria, \$10,001; Westminster, \$11,471; total, \$41,700, against \$36,105 for April 1904. Gross earnings railway and lighting, \$70,823, against \$61,889 for April, 1904. Working expenses, \$41,090; renewal fund, \$6,695; net income, \$23,038, against \$37,511; working expenses, \$5,988 renewal funds, and \$18,390, net income for April, 1904. Net earnings for ten months ended April 30, \$277,400, against \$242,761 for same period 1903-04.

Halifax Electric Tramway.—Railway receipts for May, \$10,710.36, against \$12,074.10 for May, 1904.

Kingston, Portsmouth and Cataraqui Ry.—No offers were received for this line which was advertised for sale by the bondholders. The city council, which has the matter of purchase, under revised conditions, under consideration, has directed the company to remove its generators from the corporation power house.

Levis County Ry.—A proposal for the reorganization of the company's affairs has been submitted for consideration by the Bondholders' Reorganization Committee. The committee suggests that it be authorized to purchase the railway, real estate and all other of the company's property, on behalf of the assenting bondholders, and for the purpose of paying for it a new company be formed with power to issue \$500,000 of 20 year 5% first mortgage bonds, \$500,000 of non-cumulative preferred stock (one-half only to be issued in connection with the reorganization), and \$250,000 of common stock. It was further suggested that the stock and bonds be disposed of under one of two plans outlined. The first plan provides for the sale of as much of the bonds at 85% as will provide for the purchase and working capital; holders of outstanding bonds to be entitled to purchase new bonds at 85% in proportion to the amount of bonds deposited by them; preferred stock to be given in exchange at par for face value of outstanding bonds, in addition to 25% of face value of outstanding bonds. The second plan provides for the raising of whatever is necessary by 90% of the bondholders purchasing at 90% additional stock equal to 30% of their present holdings. In return for this for each \$1,000 bond surrendered there will be delivered a bond of the new company for \$100, six shares of \$100 each fully paid preferred stock, and five shares of fully paid common stock. The circular issued in connection with the matter sets forth the proposal in full detail, and states that the committee will be entitled as remuneration for their services to not exceeding \$50,000 of fully paid up common stock of the proposed new company. The committee consists of T. B. Macanlay, R. Audette and J. Forman, of Montreal.

Montreal Street Ry.—Passenger earnings for May, \$232,999.06; total earnings, \$236,399.19, against \$217,311.18 and \$222,151.32 for April, 1904. Operating expenses, \$134,693.27; fixed charges, \$28,718.60, surplus,

DIVIDEND NOTICE

Niagara Navigation Company

Notice is hereby given that an interim dividend of four per cent. (being at the rate of eight per cent. for the year) has been declared upon the Capital Stock of this Company, and the same will be payable on the 31st July, 1905.

The Transfer Books will be closed from the 17th June to 30th June, 1905, both days inclusive.

By Order of the Board.

E. B. OSLER,

Toronto, June 12th, 1905.

President.

Ticket
Agts.



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In Special Excursion Pullman Cars, Round Trip Tickets to all South and South-west points daily, same to California. Rate same via New Orleans as other direct routes. First and third Tuesdays each month.

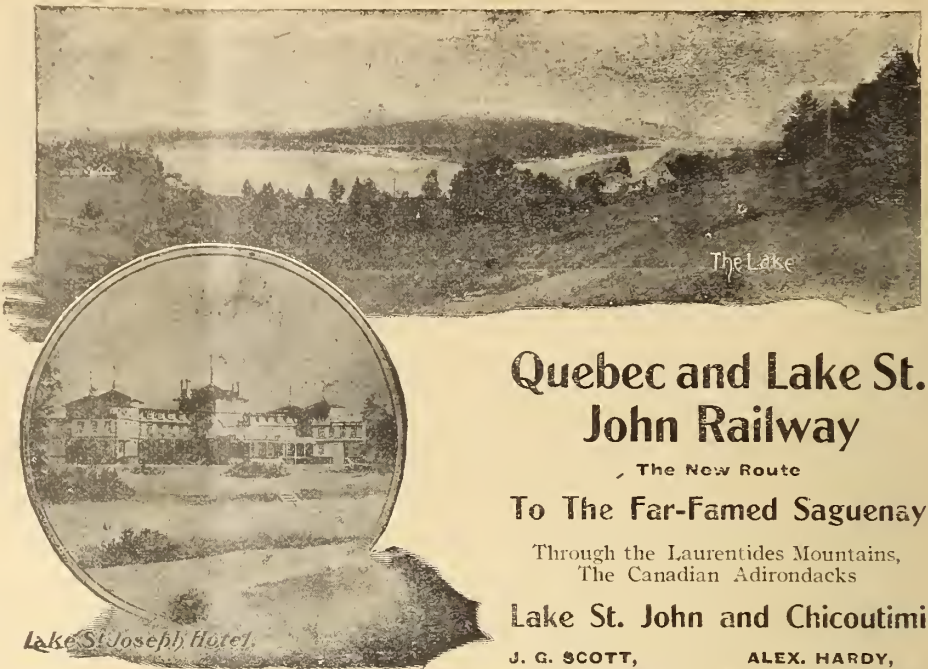
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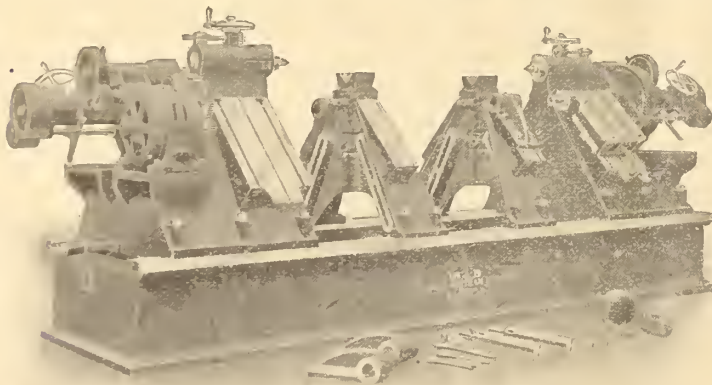
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This 90" Quartering Machine is designed for quartering and boring crank pin holes in locomotive driving wheels having right hand lead and wheels having left hand lead up to 85" in diameter on the tread. The boring spindles have 15" travel and two changes of power and rapid hand movement. The saddles are graduated and have angular adjustment for any length of stroke from 12" to 36". The axles are held on their centres and supported by adjustable V bearings, the wheels being clamped to the side of the frame. Each head is arranged to be driven by a 5 H.P. electric motor.

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I. A. YOUNG,

AGENT

\$72,957.62, against \$126,641.73, \$22,641.41 and \$70,871.18 for May, 1904. Net earnings for eight months ended May 31, \$554,864.59; fixed charges, \$169,653.87; surplus, \$385,210.72, against \$510,958.87 net earnings, \$149,075.92 fixed charges, and \$361,882.95 surplus for same period 1903-04. The interest on Montreal Park and Island Ry. Co's bonds owned by the M.S. Ry. Co., not included.

South-Western Traction Co.—The annual meeting was held June 5, when it was reported that a satisfactory agreement had been made with St. Thomas, Ont., respecting the entrance of the company's lines into that city, and that the line would be open for traffic at an early date. The auditors' report as to expenditures was presented and approved. The officers and directors for the current year are: President, T. G. Rumball; Vice-President, Lieut.-Col. R. McEwan; Managing Director and Secretary-Treasurer, A. E. Welch; Solicitor, T. H. Luscombe; other directors: Dr. A. McKay, H. M. Rumball, W. Dafoe, J. Howlett, and Capt. T. E. Hobson.

Toronto Ry.—Car earnings for May \$225,768.23, against \$198,336.93 for May, 1904.

Electric Railway Notes.

The Toronto and York Radial Ry. is constructing a telephone system on its lines.

A test is being made by the Toronto Ry. of a new motor brake. It is operated by simply pressing a lever, the motor operating the brake.

The Chatham, Wallaceburg and Lake Erie Ry. has ordered four double equipments and one quadruple equipment of no. 101 railway motors from the Canadian Westinghouse Co.

The Winnipeg City Council decided May 30 to pass a by-law to permit cars to be run by the street railway on Sundays after June 15. Opposition is threatened if the council passes the by-law.

The Toronto Ry. has issued a notice that all its cars are to stop at churches during hours of worship, and at all streets where there are churches, for the convenience of the congregations.

A number of questions in dispute between the Toronto Ry. and the Toronto City Council have been referred for settlement to Judge Snider. The principal matters of reference are the penalty claims.

F. Hoffmeister, who was expected in Vancouver, B.C., June 6, to take up his duties as Electrical Superintendent of the B.C. Electric Ry., has been delayed in Winnipeg, Man., owing to the serious illness of his wife.

The Montreal Street Ry. is suing the Montreal Terminal Ry. for \$5,000 damages owing to the latter having as alleged placed an improper diamond at the crossing on Davidson and Notre Dame streets, whereby the former's cars have been damaged.

The Hamilton Cataract Power, Light and Traction Co. is making extensive additions to its power plant at DeCew Falls, Ont. Orders have been placed with the Canadian Westinghouse Co. for 2 6,100 k.w. 3 phase 2,400 volt, 8,000 alternating 287 r.p.m., 2 bearing generators with motor-driven exciters and switchboard apparatus, and for 4 3,200 k.w. oil insulated water-cooled raising transformers.

The Windsor and Tecumseh Electric Ry. is to be equipped with 300 k.w. 3,300 volt Westinghouse single phase engine type generators, direct coupled to Robb-Armstrong engines, and its car equipments are to consist of 2 50 h.p. Westinghouse single-phase motors each. As this is the first single-phase road in Canada, its developments will be

watched with considerable interest. This equipment eliminates feeders, sub-stations and raising transformers. The generator voltage is fed directly to the car through the trolley wire, and step-down transformers are carried by each car.

The second annual report of the Montreal Street Ry. Mutual Benefit Association for the year ended April 30, showed members disabled through sickness or injury, 611; prescriptions issued, 2,864; visits made by physicians to disabled members, 692; consultations given by physicians to disabled members, 4,026; paid for sickness and injury, \$6,239.10; medicine, \$783.73; death and burial insurance, \$5,767.67. The membership has increased to 1,700, and the funds were increased by \$1,316.42, the proceeds of a picnic; and a special donation of \$3,000 from the M.S.R. Co. The fees and dues received from members were \$8,800. The total revenue for 1904-05 was \$22,398.65; expenses, \$18,850.41; surplus \$3,548.24. The surplus for 1903-04 was \$5,800.48, which makes the total invested surplus \$9,348.72. The committee of management for the current year is: President, D. McDonald; Secretary-Treasurer, P. Dubee; other members: W. G. Ross; L. Trudeau, H. R. Lockhart, R. M. Hannaford, D. E. Blair, H. G. Taylor, A. Caron, J. Donald, G. Bellrose, L. Charland, W. Butler, F. X. LaCroix, E. Drinkwater.

St. John, N.B., Railway Co.

Following are extracts from the report presented at the annual meeting June 14:—The business for the year ended April 30, shows a net profit, after providing for interest on bonds and all other charges, of \$52,034.44, out of which there were declared two half-yearly dividends of 3% amounting to \$44,626.80, leaving a balance of \$7,407.64, which has been transferred to profit and loss account. Since the last annual meeting Seaside Park has been purchased and the tracks carried to it, besides equipping the buildings for restaurant purposes, and making the grounds attractive. This venture has proved quite successful, notwithstanding that the weather last summer was the worst for very many years and that the park had not opened until July 1. The company has completed a further improvement, which will enable it to perform a quicker service in the city, that is the continuation of the tracks from the corner of Princess and Carmarthen streets to Wentworth, through Wentworth to King, down King to Pitt, along Pitt to Britain, and through Britain connecting with tracks already in use. It was contemplated to double-track the Seaside Park line this summer and the company had authority to do so; but obstacles have been thrown in the way which may compel it to delay this improvement for an indefinite period. The city of St. John, having applied to the Provincial Legislature for certain important modifications in the charter rights of the company, succeeded in imposing upon the company important changes in the matter of maintenance and care of the streets upon which its railway is operated, much to the company's disadvantage. The directors view with alarm, which must be shared by other companies doing business in New Brunswick, the action of the Legislature in so enacting that a charter given by them can be changed in this way, as such must have the effect of seriously damaging the credit of present and future enterprises in the Province; but the directors trust that on serious consideration by the Government these modifications will be annulled. The city, fully realizing its obligations to the company, entered into a contract dated Dec. 1, 1897, running for 10 years, under which, instead of maintaining the streets the company pays a fixed sum. This contract has two years still to run, and

the modifications imposed upon the company do not take effect until it expires, by which time it is hoped the company shall be relieved from these new obligations.

ASSETS.	
Cost of property.....	\$1,587,419.23
Accounts receivable.....	31,013.76
Stores.....	19,513.42
Cash on hand.....	600.00
Cash in bank.....	7,862.15
Total.....	\$1,646,408.56

LIABILITIES.	
Capital stock.....	\$779,700.00
Bonds.....	675,000.00
Accounts payable.....	36,287.58
Outstanding tickets.....	2,635.35
Dividend payable June 12.....	23,391.00
Contingent and depreciation.....	38,264.51
Profit and loss.....	91,130.12
Total.....	\$1,646,408.56

INCOME ACCOUNT.	
Dividends.....	
Paid Dec. 15, 1904.....	\$21,235.80
Payable June 15, 1905.....	23,391.00
Transferred to profit and loss.....	7,407.64

Profits for the year, after providing for interest on bonds and all other charges.....	\$52,034.44
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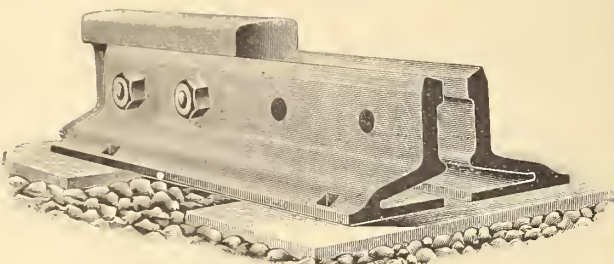
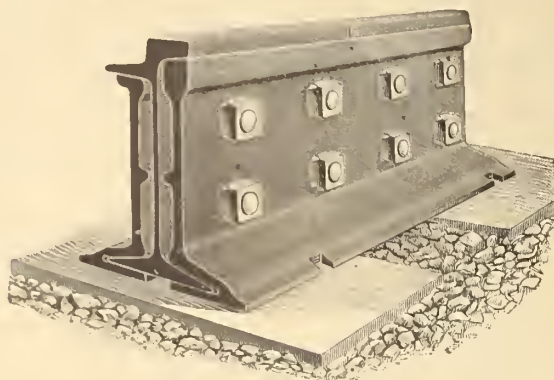
Following are the officers and directors for the current year: President, Jas. Ross, Montreal; Vice-President, H. H. McLean, St. John; other directors: R. B. Emerson, J. Manchester, J. J. Tueker, M. Neilson, W. Downie, H. B. Robinson. J. M. Robinson who was Vice-President, retired on account of ill-health.

SHIPPING MATTERS.

Northern Navigation Co. of Ontario.

The statement of claim of this company against Thos. Long and J. J. Hopkins, executors of the late J. J. Long, has been filed in the High Court of Justice of Ontario. It sets forth that J. J. Long was a director and president of the company during 1902 and 1903. By the by-laws the directors were required to prepare and submit to the shareholders at their annual meeting a financial report and statement of the affairs of the company, and of the position of its business, and the result of its operations, and it was the duty of J. J. Long as President, to prepare such a report and statement on behalf of the directors, and he undertook the preparation of such a report and statement to be presented at the annual meeting held at the close of the year 1902, and did actually prepare, or superintend the preparation of such report and statement. The said report and statement was brought before the directors of the company by J. J. Long, and upon his representation and assurance that it was correct and accurate it was adopted by the directors as their annual report and statement and was submitted as such to the annual meeting. Previous to the presentation of the report and statement the company had paid three semi-annual dividends of 5% upon its subscribed capital stock, and after the presentation and adoption of the report and statement the company through its directors, in June and Dec., 1902, relying upon the correctness and accuracy of the report and statements, and on the faith of the truth thereof, declared and paid two further dividends of 5% each, and the company was induced to declare and pay these dividends by the said report and statement, and by the statements therein contained, and these dividends would not have been declared and paid but for such statements. J. J. Long, at the time of the preparation of the said report and statement, was the holder of a large amount of the capital stock of the company, which stock had recently been listed on the Toronto Stock Exchange. J. J. Long was desirous of disposing of his holdings of the stock, and it was important to him, in order that the price of the said stock should be maintained or en-

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For Sault Ste. Marie, Port Arthur, Fort William and Duluth Steamers leave Sarnia Mondays, Wednesdays and Fridays at 3.30 p.m.

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H. H. GILDERSLEEVE - Manager
Collingwood

C. H. NICHOLSON - Traffic Mgr.
Sarnia

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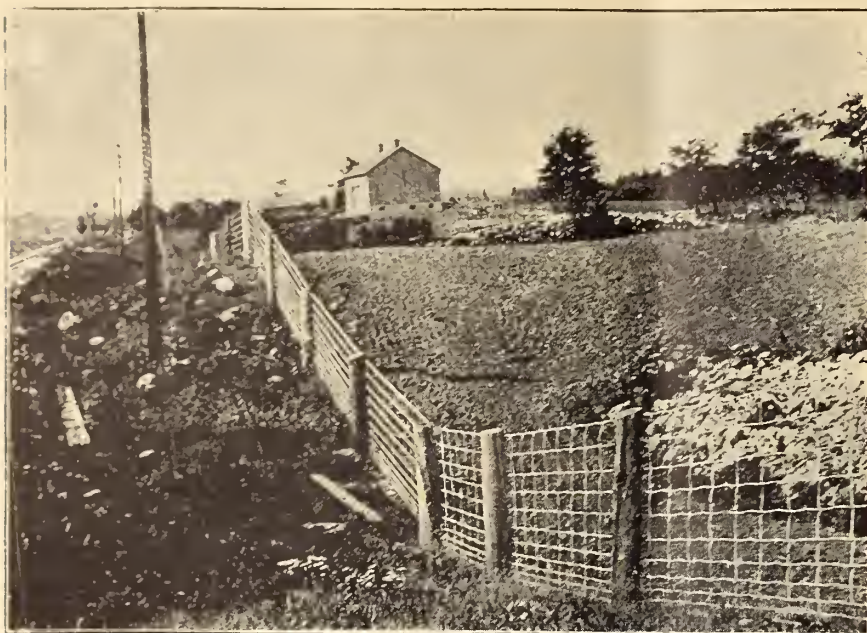
the fraud and deceit which had been practised upon it, and having become aware of the damage it had suffered by reason of J. J. Long's fraud and deceit and false and fraudulent representations, made claim upon him in respect of the premises, and he thereupon agreed to pay, and the company agreed to accept \$83,773.40 in settlement of the company's claim, and the company claims payment from the defendants of \$83,773.40, with interest from June 30, 1904. The plaintiff proposes that this action be tried at Toronto.

LIST OF STEAMSHIPS REGISTERED IN CANADA FROM MAY 1 TO MAY 31.

Name.	No.	When and Where Built.	Engines, etc.	Length	B'dth.	Depth	Gross tons.	Reg. tons.	Home Port.	Owners.
Alberta.....	116,603	Sorel, Que., 1905.....	39 N.H.P. Screw.....	96.4	17.7	6.9	125	62	Montreal.....	The Sincenne-McNaughton Line, Ltd., Montreal.
Alph. Racine.....	116,602	Sorel, Que., 1904.....	43 " ".....	79.2	18.6	10.1	121	69	Montreal.....	Harbor Commissioners, Montreal.
Amelia.....	104,069	Ayr, Scotland, 1894.....	69 " ".....	145.0	22.8	9.9	357	103	Magdalen Islands.....	Magdalen Islands S.S. Co., Halifax, N.S.
Burrard.....	117,018	Vancouver, B.C., 1905.....	10 " ".....	63.6	14.2	6.5	56	38	Vancouver, B.C.....	J. D. Foreman, Vancouver, B.C.
Columbia.....	117,017	Vancouver, B.C., 1905.....	3 " ".....	60.0	14.0	4.5	40	27	Vancouver, B.C.....	Rev. J. Antle.
Com. McRae.....	117,015	Vancouver, B.C., 1905.....	3 " ".....	22.7	6.2	3.0	2	2	Vancouver, B.C.....	R. Hamilton, Vancouver, B.C.
Constance.....	117,016	New Westminster, B.C.....	10 " ".....	50.0	11.0	5.5	23	16	Vancouver, B.C.....	A. McEvoy et al., Vancouver, B.C.
Cygnets.....	117,019	Vancouver, B.C.....	2 " ".....	25.8	10.4	3.4	6	4	Vancouver, B.C.....	Maple Ridge Creamery & Fruit Canning Co., Port Hammond, B.C.
Dredge No. 2.....	117,102	U. S. A.....	" ".....	84.0	29.5	8.3	291	247	" ".....	R. E. Stewart and E. Passe, Ottawa.
Eagle.....	116,986	Rat Portage, Ont., 1905.....	1 " ".....	32.0	9.6	4.0	12	8	Rat Portage, Ont.....	G. H. Draper, Rat Portage, Ont.
Edson Fitch.....	117,103	Hull, Que., 1904.....	2 " ".....	120.0	24.0	7.9	183	171	Ottawa.....	Ottawa Transportation Co., Ottawa.
Elsie.....	117,012	Vancouver, B.C., 1905.....	2 " ".....	40.0	11.6	4.8	16	11	Vancouver, B.C.....	J. W. Hackett, Vancouver, B.C.
Fraserville.....	116,715	Port Glasgow G.B., 1904.....	17 " ".....	60.0	15.3	7.4	51	35	Quebec.....	D. Fraser et al., Fredericton, N.B.
Hardy.....	117,075	Simcoe, Ont., 1896.....	3 " Paddle.....	37.0	10.0	4.0	28	18	Toronto.....	W. E. Bigwood, Toronto.
Holland & Graves (3).....	117,076	Simcoe, Ont., 1905.....	3 " ".....	41.0	10.0	4.0	30	19	Toronto.....	W. E. Bigwood, Toronto.
Holland & Graves (4).....	117,077	Simcoe, Ont., 1905.....	3 " ".....	41.0	10.0	4.0	30	19	Toronto.....	W. E. Bigwood, Toronto.
Iona.....	112,338	Meaford, Ont., 1904.....	9 " Screw.....	58.2	13.2	5.6	29	20	Collingwood, Ont.....	H. McInnes, Meaford, Ont.
John Randall.....	117,121	Kingston, Ont., 1905.....	13 " ".....	104.4	22.5	7.7	194	95	Kingston, Ont.....	J. Randall, Seely's Bay, Ont.
J. W. Todd.....	117,104	Hull, Que., 1904.....	" ".....	120.0	24.0	7.9	183	171	Ottawa.....	Ottawa Transportation Co., Ottawa.
Kathleen.....	116,631	Lindsay, Ont., 1905.....	6 " ".....	66.0	14.0	4.0	37	26	Lindsay, Ont.....	E. Elliott, Lindsay, Ont.
Kingsfisher.....	116,985	Rat Portage, Ont., 1905.....	19 " ".....	65.0	14.1	10.0	77	52	Rat Portage, Ont.....	R. P. Lumber Co., Rat Portage, Ont.
Lady Eileen.....	103,512	Port Glasgow G.B., 1905.....	104 " ".....	168.2	31.0	19.6	921	526	Rat Portage, Ont.....	Interprovincial Nav. Co. of Canada, Cambridge, Ont.
Marion.....	117,074	Simcoe, Ont., 1905.....	1 " ".....	34.7	10.0	3.8	9	6	Toronto.....	W. F. Ball, Sombra, Ont.
Marshall W.....	116,973	Chatham, N.B., 1905.....	4 " ".....	31.4	10.3	3.0	6	4	Chatham, N.B.....	J. Miller, Chatham, N.B.
Maud.....	112,202	Hamilton, Ont., 1905.....	1 " ".....	32.5	7.0	3.6	4	3	Hamilton, Ont.....	D. Reynolds, Dundas, Ont.
Rover.....	111,884	Peterboro', Ont., 1905.....	3 " Paddle.....	40.0	9.5	3.2	19	12	Peterboro', Ont.....	The Dickson Co., Limited.
Sonoma.....	117,111	Vancouver, B.C., 1905.....	3 " Screw.....	46.5	11.0	4.6	19	13	Vancouver, B.C.....	F. Keeling, et al., Vancouver, B.C.
Standard.....	116,987	Rat Portage, Ont., 1905.....	1 " ".....	44.0	10.0	4.5	16	11	Rat Portage, Ont.....	F. Gustafson, Rat Portage, Ont.
Success.....	116,976	Burnt Church, N.B., 1904.....	5 " Paddle.....	61.0	12.6	2.5	21	13	Chatham, N.B.....	W. Anderson, Burnt Church, N.B.
Wanderer.....	116,988	Rat Portage, Ont., 1905.....	1 " Screw.....	45.0	11.0	4.5	20	13	Rat Portage, Ont.....	J. Matheson, Rat Portage, Ont.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM MAY 1 TO MAY 31

Name.	No.	When and Where Built.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Ada and Pearl	116,900	Arcadia N.S., 1904.	34.0	12.0	6.2	13	13	Yarmouth, N.S.	J. T. Duncun, Clark's Harbor, N.S.
Adelaide	116,526	Lunenburg, N.S., 1905.	38.5	11.7	5.5	13	13	Lunenburg, N.S.	Jas. Holland, Lunenburg, N.S.
Agnes M.	116,898	Tusket Wedge, N.S., 1905.	37.0	11.6	6.0	14	11	Yarmouth, N.S.	I. Duquette, Tusket Wedge, N.S.
Alexander R.	116,748	Liscomb, N.S., 1905.	71.2	19.8	9.0	75	75	Halifax, N.S.	A. Rudolph, Liscomb, N.S.
Annie Lue	117,113	Shelburne, N.S., 1904.	33.0	11.4	6.0	10	10	Yarmouth, N.S.	J. M. Crowell, Port La Tour, N.S.
Cora May	116,236	Shelburne, N.S., 1905.	75.0	21.0	8.0	64	64	Digby, N.S.	C. E. Finnegan et al, Freeport, N.S.
C. W. 2.	117,020	Vancouver, B.C., 1904.	72.0	24.0	6.0	88	88	Vancouver, B.C.	Champion & White, Vancouver, B.C.
Drusie	116,912	Liverpool, N.S., 1905.	100.3	25.5	9.5	128	99	Liverpool, N.S.	I. Millard, Liverpool, N.S.
Edith F. S.	116,528	La Have, N.S., 1905.	69.4	21.8	8.5	67	67	Lunenburg, N.S.	J. Schmeiser, La Have, N.S.
Ellie Annie	116,979	Caracut, N.B., 1905.	40.0	13.2	5.8	17	17	Chatham, N.B.	G. & Lantaigue Caracut, N.B.
Etha May	117,141	Dover, N.S., 1905.	41.2	11.5	5.2	11	11	Halifax, N.S.	R. John-on, Dover, N.S.
Ethel G.	116,890	West Head, N.S., 1904.	38.0	11.5	5.0	12	12	A. Ichat, N.S.	T. George, White Haven, N.S.
Gatherer	116,525	Lunenburg, N.S., 1905.	44.4	13.4	6.2	15	15	Lunenburg, N.S.	I. Berringer, Lunenburg, N.S.
Georgina	116,980	Shippegan, N.B., 1905.	38.6	13.4	5.1	15	15	Chatham, N.B.	G. I. Dugue, Shippegan, N.B.
Guide	116,527	La Have, N.S., 1905.	75.2	21.8	8.5	73	73	Lunenburg, N.S.	W. N. Reinhardt, La Have, N.S.
Ida.	117,181	Shippegan, N.B., 1905.	39.0	13.1	5.0	16	16	Chatham, N.B.	I. Savoy, Shippegan, N.B.
Ilona and Ida	117,131	Shelburne, N.S., 1905.	35.5	12.5	6.0	13	13	Yarmouth, N.S.	W. N. Madden, Port La Tour, N.S.
Jennie Roy	117,133	Shelburne, N.S., 1905.	32.0	10.6	6.0	10	10	Yarmouth, N.S.	I. Smith, Port La Tour, N.S.
Jessie W.	116,747	Indian Harbor, N.S., 1905.	39.5	10.6	5.3	12	12	Halifax, N.S.	H. Weinart, Indian Harbor, N.S.
J. J. Cox	116,853	Shelburne, N.S., 1905.	75.0	21.9	8.1	65	65	Shelburne, N.S.	W. T. McCarthy, Shelburne, N.S.
Laura B.	117,136	Cape Island, N.S., 1905.	31.0	12.0	5.6	10	10	Yarmouth, N.S.	H. Spin, Cape Island, N.S.
Lydia L.	106,899	Plymouth, N.S., 1905.	31.0	12.0	6.2	14	14	Yarmouth, N.S.	N. Le Blanc, Plymouth, N.S.
Mabel	116,977	Shippegan, N.B., 1905.	38.0	13.4	5.0	16	16	Chatham, N.B.	W. A. Leggie Co., Limited, Chatham, N.B.
Mahone Packet.	116,524	Mahone Bay, N.S., 1905.	74.8	23.2	8.8	78	78	Lunenburg, N.S.	C. N. Mader, Mahone Bay, N.S.
Mankabe.	116,523	Bridgewater, N.S., 1905.	73.8	22.6	9.0	76	76	Lunenburg, N.S.	S. Walters, La Have, N.S.
Margaret.	116,978	Shippegan, N.B., 1905.	40.0	13.1	5.4	16	16	Chatham, N.B.	W. A. Leggie Co., Limited, Chatham, N.B.
Mariana	116,854	Sable River, N.S., 1905.	62.4	13.5	6.7	33	33	Shelburne, N.S.	W. J. Harding, Little Harbor, N.S.
Marie Etoile.	117,182	Caracut, N.B., 1905.	42.0	13.7	5.8	20	20	Chatham, N.B.	J. A. Dorion, Caracut, N.B.
Myrtle S. J.	116,897	Sanford, N.S., 1904.	35.0	12.0	6.0	12	12	Yarmouth, N.S.	A. Shaw, Sanford, N.S.
Nahoda	116,530	Lunenburg, N.S., 1905.	88.6	24.6	9.5	104	94	Lunenburg, N.S.	H. Wymacht, Lunenburg, N.S.
Nema D.	117,132	Port La Tour, N.S., 1904.	33.0	11.0	6.0	10	10	Yarmouth, N.S.	J. C. Braumen, Port La Tour, N.S.
O. P.	116,802	Sorel, Que., 1905.	103.1	23.3	6.4	121	118	Sorel, Que.	O. Paul, Sorel, Que.
Perseverance.	116,745	Mahone Bay, 1905.	43.4	12.3	5.8	12	12	Halifax, N.S.	E. E. Stratford, Indian Harbor, N.S.
Providence.	116,974	Caracut, N.B., 1905.	40.4	13.8	5.8	18	18	Chatham, N.B.	M. Lantigue, Caracut, N.B.
Reliance.	116,749	Tancock, N.S., 1905.	43.0	11.8	6.0	14	11	Halifax, N.S.	W. Hubley, Indian Harbor, N.S.
Ruby.	116,975	Parrsboro, N.S., 1905.	59.8	22.0	6.2	56	53	Chatham, N.B.	A. Loggie et al, Dalhousie, N.B.
Sakata.	116,901	Port Greville, N.S., 1905.	149.0	35.0	12.2	464	395	Parrsboro, N.S.	W. F. Conlin, Parrsboro, N.S.



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List of Canadian Shipping.

The total number of vessels remaining on the registry books of the Dominion on Dec. 31, 1904, including old and new vessels, sailing vessels, steamers and barges, was 7,152, measuring 672,838 tons register tonnage, an increase of 132 vessels, and a decrease of 10,309 tons register, as compared with 1903. The number of steamers on the registry books on the same date was 2,543 with a gross tonnage of 353,514 tons. Assuming the average value to be \$30 a ton, the value of the registered tonnage of Canada on Dec. 31, 1904, was \$20,185,140, against \$20,494,410 on same date 1903. Following is a summary showing the number of vessels and their tonnage by provinces:—

	Sailing ships and steamers	Steamers	Gross tonnage of steamers	Net Tonnage of sailing ships and steamers
N. Brunswick	933	138	12,433	54,855
Nova Scotia	2,066	193	22,038	211,972
Quebec	1,287	384	87,533	130,339
Ontario	1,886	1,288	151,338	176,430
P.E. Island	161	16	2,908	12,200
B. Columbia	666	414	66,701	77,105
Manitoba	141	99	7,359	7,765
Yukon Dist.	12	11	3,204	2,172
Grand total.	7,152	2,543	353,514	672,838
Total for 1903	7,020	2,410	338,281	683,147

There are 78 ports of registry in the Dominion, an increase of one in the year, the new port being Sorel, Que. The ports are distributed as follows:—Ontario, 38; Nova Scotia, 21; New Brunswick, 7; Quebec, 6; British Columbia, 3; Prince Edward Island and Yukon, one each.

The ports having more than 300 vessels registered are:—Quebec, 634; Montreal, 599; Halifax, 426; Ottawa, 407; St. John, 361; Chatham, N.B., 355; Toronto, 350; Lunenburg, N.S., 318. Of steamers there are registered 271 at Toronto; 227 at Montreal; 225 at Ottawa; 184 at Vancouver, B.C.; 154 at Quebec; 136 at Victoria, B.C.; 109 at Kingston, Ont.; and 99 at Winnipeg. The port having the largest tonnage is Montreal, with 97,689 tons; Victoria being second with 47,198 tons, and Windsor, N.S., third with 46,432 tons.

The number of new vessels built and registered in the Dominion during the year was 308, measuring 18,554 tons register tonnage. Estimating the value of the new tonnage at \$45 a ton, it gives a total value of \$834,930 for new vessels, against \$1,364,535 for new vessels built in 1903. The new vessels were built and registered as follows:—

	Vessels	Tons.
New Brunswick	25	1,306
Nova Scotia	99	5,993
Quebec	20	3,203
Ontario	105	5,167
Prince Edward Island	2	185
British Columbia	48	2,362
Manitoba	9	338
Yukon District	Nil.	Nil.
Total	308	18,554
Total for 1903	328	30,323

During the year the names of 24 vessels were changed at 13 ports.

In point of ownership of net tonnage Canada stands eighth among the nations, those having over 100,000 tons being as follows:

British, including Canada and other Colonies	11,225,421
United States	2,636,281
German	2,298,902
Norwegian	1,390,062
French	1,143,661
Italian	982,118
Russian	924,772
Canadian	672,838
Swedish	639,122
Japanese	587,908
Spanish	541,037

Dutch	469,826
Danish	439,356
Grecian	385,215
Austrian	365,360
Turkish	238,419
Brazilian	162,731
Belgian	104,018

Capt. Ritchie, for a number of years in command of the Allan Line str. Parisian, died at Rothesay, Isle of Bute, Scotland, May 23.

The Dominion Government cruiser Canada has returned to Halifax, N.S., from a lengthened cruise in West Indian waters for the instruction of the crew. During the summer she will be employed in the fisheries protection service off the Maritime Provinces coastline.

The Australian Government has renewed the contract with the Canada-Australian Line of steamers for the carrying of mail from Sydney, New South Wales, to Vancouver, B.C. A renewal of the contract with the Canadian Government for one year has been made.

The question of the seizure of the Canadian schooner Agnes M. Donohue, off the coast of Uruguay, by the Government of that republic, has been specifically brought to the notice of the Government through the Lieutenant-Governor of British Columbia by the Master Mariners of that Province. The schooner was under full sail, and was three miles beyond the territorial waters when the seizure was made. Diplomatic action will be taken through the regular channels.

Several misunderstandings have arisen in connection with the proposal to establish a steamship service between Canada and Mexico on both the Atlantic and the Pacific oceans. A contract was let to Weir and Co. of Glasgow, Scotland, for the Pacific service, but the Mexican Government being apparently more anxious for the Atlantic service combined the subsidies. The service will be inaugurated July 20, when the steamer Anglia will leave Montreal, taking freight and passengers for Progreso, Coahuila de Zaragoza, Vera Cruz and Tampico, Mexico, calling at Charlottetown, P.E.I., and Halifax, N.S.; Nassau, Bahamas; and Havana, Cuba, en route. On the return trip the steamer will not call at Cuba, but will call at Halifax and Charlottetown. A monthly sailing from each port has been arranged. The Elder-Dempster Co. has the contract, and the company's manager in Montreal will be D. W. Campbell, who managed its operations in the city prior to the purchase of the transatlantic steamers by the C.P.R.

The proceedings of the International Waterways Commission which held its preliminary meetings at Washington, D.C., have been devoted largely to the discussion of the scope of the enquiry. The most important feature has been the question of whether the St. John River is to be considered. Though a boundary river, its free navigation is assured to U.S. citizens under a special treaty, and the contention of the U.S. Commissioners is that this river cannot be considered. The question is of considerable importance to New Brunswick lumbermen particularly. The Canadian Commissioners contend that the intention in appointing the commission was to investigate in general the waters adjacent to the boundary line. Under the present instructions the U.S. Commissioners are authorized to investigate only the condition of the Upper Lakes which empty into the St. Lawrence. On June 6, the Canadian Government, while standing by its original contention, consented to the Commissioners proceeding with the work in connection with the Great Lakes and tributary waters. The U.S. Commissioners have their headquarters at Buffalo, N.Y., and the Canadian Commissioners have theirs at Toronto.

Notices to Mariners.

The following have been issued by the Dominion Department of Marine:—

No. 35. May 12.—Nova Scotia—89. West coast, Yarmouth harbor; light established on corner beacon. 90. South coast, Mahone Bay, change in character of buoy, new buoy. 91. South coast, Halifax, harbor, north-west arm, change in character of buoy, new buoy.

No. 36. May 26.—Quebec.—95. River St. Lawrence, between Murray Bay and Kamouraska, Morin shoal, gas buoy established.

No. 37. May 26.—British Columbia—96. Northern waters, Chatham Sound, depth on rock off Holland Island. Alaska.—97. Lynn Canal, Chilkat Inlet, rock reported.

No. 38. May 26.—Ontario—98. An edition of sailing directions for the Canadian shore of Lake Huron has been published for use in connection with the sheet charts containing the results of the surveys of these waters. Copies can be had from the Department of Marine and Fisheries, Ottawa, and from the Collectors of Customs at the principal lake ports. 99. Lake Huron, north channel, Blind River, light on wharf discontinued.

No. 39. May 27.—New Brunswick—102. Restigouche River, Campbellton, front range lighthouse moved. Newfoundland.—103. East coast, Fog Island, Brookes point, light established. 104. South coast, Placentia bay, Burin harbor, approach, Iron Island, fog bell.

No. 40. May 29.—Quebec.—105. Gulf of St. Lawrence, Gaspé coast, range lights established.

No. 41. May 30.—New Brunswick.—106. South coast, Bay of Fundy, Point Lepreau fog alarm, change in length of and intervals between blasts.

No. 42. May 31.—Nova Scotia.—108. Bay of Fundy, Basin of Mines, Parrsboro, fog bell established at lighthouse.

No. 43. June 5.—Quebec.—109. River St. Lawrence below Quebec, Beaujeu channel, lighthouse foundation placed, temporary lights exhibited.

Maritime Provinces and Newfoundland.

Capt. M. Reddy, a retired shipbuilder and master mariner of Guysboro county, died at Boylston, N.S., June 2, aged 80.

Capt. D. Wall, a well-known lake captain, who died at Marinette, Wis., recently, was born in Richibucto, N.B., in 1838.

The steam yacht Adrienne of Boston, Mass., has been purchased by D. M. Robb, of the Robb Engineering Co., Amherst, N.S.

The Prince Edward Island Legislature at its recent session passed an act amending the act of incorporation of the Island Tug Co.

D. A. Smith and W. A. Richardson have been appointed members of the pilotage authority for North Sydney, N.S., the latter being appointed Secretary-Treasurer.

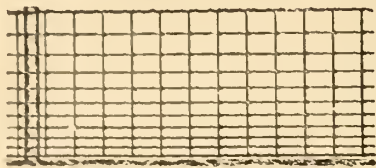
A. N. Whitman, of Canso, N.S., has purchased the str. Olive from Beazley Bros., of Halifax. The Olive was built at Dartmouth, N.S., 1903, and is a screw steamer of 24 tons register. She is fitted with engines of 40 h.p.

The French str. Pro Patria, trading between Halifax, N.S., and St. Pierre, Miquelon, ran on a rock 30 miles west of Lunenburg, N.S., May 30, and has been found to be so badly damaged that she has been abandoned as a total loss. The passengers and crew were saved.

The ferry steamer which the St. John, N.B., City Council is having built at the port has been launched, and was named the Ludlow. The hull was constructed by the Bertram Engine Works, Toronto, and sent in sections to St. John, where it was put together, and the engines, which were constructed at St. John, installed.

The Brig Curacao Co., and the Brig G. B. Lockhart Co., have been incorporated under the Dominion Companies' Act, with offices at

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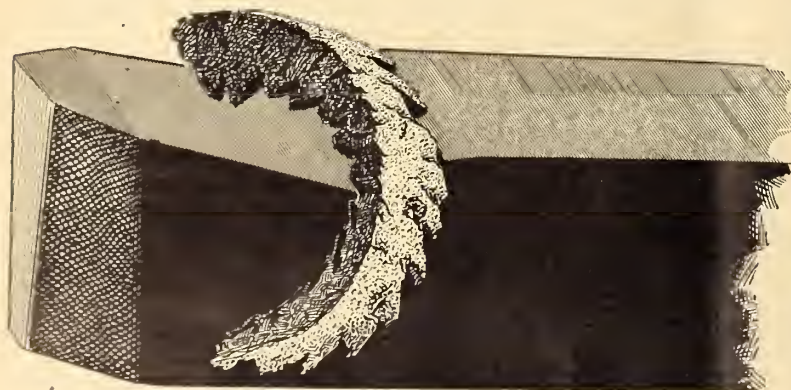
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**STEAM
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MENTS**

Horton, N.S., and \$10,000 and \$7,500 capital respectively, to purchase the vessels named. The provisional directors are the same in each case, viz.: J. T. and D. E. North, Horton, N.S.; G. B., F. and W. Lockhart, of New York city.

A plan has been submitted to the public by J. S. Armstrong, a civil engineer, for harbor improvements at St. John, N.B. He advocates the rearrangement of wharves at Sand Point, and the commencement of construction on lines which would provide for future extensions as required. The plan is suggested as an alternative to the new wharf, which the city council proposes to erect to provide 1,500 feet of additional wharf space.

The Reid-Newfoundland Co.'s str. Bruce has just come out of dry dock at St. Johns, Nfld., after having had the whole of the sheathing stripped off and the plates underneath examined and riveted. The sheathing will be renewed for the winter trade. The engines have also been overhauled, and some redecoration has been done. The Bruce has resumed her trips between Port aux Basques, Nfld., and Sydney, N.S.

A steamer, Chr. Knudsen, was launched recently at Middlesborough, Eng., for Norwegian owners, but to be engaged in the Canadian coal and ore trade. The vessel is the third of a new type and is so designed that although 51 ft. beam, she has no hold or lower deck beams, pillars or web frames throughout the holds, thus making absolutely free and clear space for cargo. Her construction and design are carried out on a patent system of cantilever transverse frames. Another feature is that when in ballast trim the propeller is almost entirely submerged. She carries 2,000 tons of water ballast, is a self trimmer, with hatches 30 ft. wide; is fitted with masts and 20 derricks, so that she will load 7,000 tons of coal in three hours and can be discharged in seven hours. The engines are placed right aft, and ample provision is made for officers and crew. The steamer has been chartered for a term of years to the Dominion Coal Co.

Province of Quebec Shipping.

Capt. Barclay, for 40 years Superintendent of the Allan line at Montreal, died there June 1, aged 77.

A. A. Allan has been elected to represent the Shipping Federation on the Montreal Harbor Commission, in place of R. Reford, resigned.

Quebec business men have signed a petition asking the Government to abolish the charge of 5c. per register ton exacted from shipping at that port as harbor dues.

Owing to a break in the banks of the Champlain Canal at Fort Edward, and Moleskill, N.Y., June 7, navigation between the St. Lawrence and Lake Champlain points was suspended. It was expected that the repairs would be completed by July 1.

The Quebec Steam Whaling Co. purchased the str. Falke, at Christiania, Norway, for its operations. The steamer arrived at Quebec early in June and subsequently went to the company's station at Seven Islands, in the St. Lawrence, from which she will operate.

A bill is under the consideration of the Dominion Parliament to amend the Pilotage Act, by placing the pilots below Quebec on a similar footing to those between Quebec and Montreal. This will have the effect of bringing the pilots more directly under the control of the Minister of Marine.

In connection with the vote of \$30,000 for hydrographic work the Minister of Marine recently stated in the House of Commons that the chart of the St. Lawrence between Quebec and Montreal would be completed about the end of July, and that from Montreal to Kingston, Ont., about a month later.

The Dominion Government has promised to give consideration to plans for the extension of the Louise embankment and other harbor improvements at Quebec, which a delegation from the Harbor Commission recently asked should be made. A Government engineer will inspect the harbor and will report upon the plans.

The North American Transportation Co.'s str. Restigouche is being run on a route between Montreal and St. John's, Nfld., calling at Charlottetown, P.E.I., and North Sydney, N.S., going, and at the latter port returning. The freight space was chartered for six months from May 15, to the Nova Scotia Steel Co., the N.A.T. Co. retaining control of the passenger traffic.

The Laird-Paton Co. has been incorporated under the Dominion Companies' Act, with a capital of \$95,000 and offices at Montreal, to carry on a general contracting business, to carry on a general boat building and repair business, and in connection therewith to take over the business of the St. Lawrence Canoe and Boat Co. The provisional directors are: J. and H. L. S. Paton, W. J. Thompson and J. Sutherland, Montreal.

A meeting of the Quebec Board of Trade was held June 5 for the purpose of considering a proposal to establish a direct line of ocean steamers from Great Britain to Quebec as the terminal point. The proposal is to raise sufficient money to charter or purchase outright the necessary number of steamers to maintain a weekly freight service. The Quebec people claim that they are being discriminated against by the steamship managers of Montreal, and they desire to have an independent service. The proposition also includes the leasing of the grain elevator owned by the Great Northern Ry., and the offering of facilities for handling western grain for export through it. The proposition was heartily endorsed and a committee was appointed to enquire into its feasibility and to devise means to carry it into practical effect.

The bill for the abolition of the Montreal Harbor Commission, as at present constituted, and for the creation of a new commission with more limited powers, is being considered by the Dominion Parliament. The new commission is to consist of five, who shall be experts in shipping matters, and representative of the different interests involved in the harbor's work. These commissioners, it is proposed, shall give their whole time to the work, and will be paid suitable salaries. The first commissioners will not be named in the bill, but will be appointed by the Government after the passing of the act. The commission which it is proposed to abolish, was established in 1830, when an act was passed giving the Governor power to appoint three commissioners for improving the harbor of Montreal. Power was given in 1841 to appoint additional commissioners, but no additional appointments were made until 1855, when the number was increased to five. In 1850 the commissioners were authorized to improve Lake St. Peter and the channel at Isle Platte. In 1873 the membership was increased to nine, and in 1893 to ten. The board has the management of the affairs of the port generally, including the making and enforcing of by-laws, the fixing of harbor dues, the apportioning of wharf space, the construction and maintenance of the wharves and other works, the collection of dues, disbursement of expenses, appointment of officers, etc. The by-laws and changes in rates of harbor dues are, however, subject to the approval of the Governor-General-in-Council before coming into effect. Any new wharves or any interference with the river bed is also subject to the same approval. Besides having jurisdiction over the harbor proper, the commissioners, up to 1901, when the Government took over the duty, were also charged with the licensing and supervision of pilots between Montreal and Quebec.

The Richelieu and Ontario Navigation Co. has placed its new steamer Montreal on the run between Montreal and Quebec. On May 22, the directors entertained a large party on a trial trip from Montreal. A set of flags was presented to the steamer, on behalf of Montreal, and in reply the President, R. Forget, gave a brief sketch of the history of the company. The company operates over 1,175 miles of river and lake navigation, owns 26 steamers which are capable of carrying 17,000, and providing berth accommodation for 4,000 passengers. The Montreal was built by the Bertram Engine Works Co., at Toronto, in 1902, and was taken through the rapids to Montreal to be completed. When nearly finished a fire broke out on board and the whole of the interior was burned out. The R. and O. N. Co. purchased the hull from the underwriters, and the steamer has been entirely reconstructed at the company's dockyard at Sorel, Que. Her dimensions are:—length, 332.4 ft.; breadth, hull 43.5 ft., overguards 75½ ft.; depth, 14.8 ft.; tonnage—gross, 4,282 tons, register 2,299 tons. She is fitted with triple expansion engines of 386 nominal horsepower, and capable of developing high speed. Steam is supplied by six Scotch cylindrical boilers 11 by 12 ft. at a working pressure of 185 lbs. The side wheels are fitted with the latest type of feathering buckets. The entire vessel is heated with steam; there are 1,200 sixteen candle-power electric lights on board, and pumps supply running water to each of the 250 state-rooms. Of these, 20 are parlor rooms, with bathroom attached. The dining-room, which will seat 150 persons, is on the main deck, forward of which is the entrance hall, with the purser's office on one side and the bar on the other. The arrangement of the upper saloons and state-rooms, on the first and second upper decks, is much the same as on the company's steamer Kingston. The main stairway to the upper saloon is in the entrance hall, and in front of the landing space at the top of the stairway is the gallery deck, at the head of which is a large painting of Cardinal Richelieu, by Suzor-Cote. In consequence of the great width of the steamer there are three rows of state-rooms on each side of the central portion of the vessel. The entrance hall is panelled in dark mahogany, relieved by panel pictures of the seasons in bronze relief. The stair and gallery railings are of bronze leaf work surmounted by handrails. The furniture generally is of dark mahogany and green plush, and it, as well as the general ornamentation of the upper saloon, is in Louis XV style.

Ontario and the Great Lakes.

The name of the tug D. I. White, of Midland, Ont., has been changed to the Midland.

The steam yacht Ellen has been sold by F. Huck, of Rockport, Ont., to Capt. Reid, of Cardinal, Ont.

The Rainy River Navigation Co. has sold its str. Keewatin to G. Gerrard, Kenora (Rat Portage), Ont.

A proposition is under consideration for the construction of a dry dock at Midland, Ont. J. Playfair, of the Midland Navigation Co., is interested in the proposition.

During May the total tonnage passing through the canals at Sault Ste. Marie was 5,775,787 tons, of which 1,686,827 went through the U.S. canal, and 1,088,960 through the Canadian canal.

A. F. Bowman, Southampton, Ont., has been awarded the contract for dredging at Fort William, Ont., at 12c. a yard; and at Port Arthur, Ont., at 14c. a yard, by the Department of Public Works.

The Department of Public Works has placed an automatic water gauge at Collingwood, and will install another at the mouth of French River, to ascertain the rise and fall of the waters in Georgian Bay.

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S.S. Dominion, July 15; S.S. Ottawa, July 22;
S.S. Kensington, July 29; S.S. Canada, August
5th; S.S. Southwark, August 12; S.S. Dominion,
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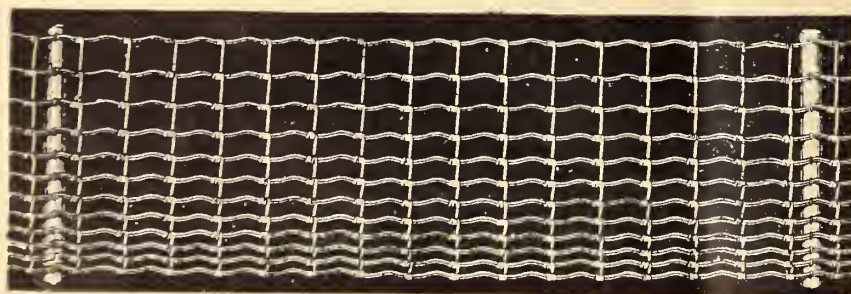
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The Turbine Steamship Co. of Hamilton, Ont., is negotiating with the builders of the Turbinia for another steamer, W. Hyslop, one of the directors, and the secretary, G. Hope, being in Newcastle-on-Tyne, Eng., for that purpose.

The Richelieu and Ontario Navigation Co.'s str. Kingston had a section of one of her paddle boxes ripped off by a projecting boom from the barge Jennie Matthews, when entering Brockville, Ont., June 3. The damage was not serious.

The str. Cuba in entering lock 21, Welland Canal, recently, carried away three of the gates and did other damage. The total damage is estimated at about \$10,000. The passing of vessels through the canal was only delayed for 24 hours.

The str. Geneva has been placed on Lake Couchiching, and is running between Orillia and Geneva Park, Ont. The steamer is a new one, the hull having been built at Kingston, Ont., and the engines constructed at the Bertram Engine Works, Toronto.

The new anchorage for up-bound vessels which may be detained at the mouth of the Detroit river by low water, was completed June 1. It extends from the new water signal station on Point Elliott, for 1,600 ft. up the river, opposite Amherstburg, Ont.

Toronto marine men propose to ask the Minister of Marine to move the fog horn station at the eastern channel to a location near the old lighthouse on the Island shore. It is stated that the sounding of the horn from the pier is rather deceiving out in the lake.

The Ontario Legislature at its recent session authorized the Toronto City Council to expend \$45,000 on the construction of a freight shed on the east side of block D, Harbor Square, and \$15,000 for buildings on wharf between Yonge and Bay streets, and to pay for the same out of the \$110,500 of debentures authorized to be issued by the act.

The full service of the three steamers of the Niagara Navigation Co. across the lake from Toronto to Lewiston, N.Y., has been in effect since the beginning of June. The Corona's machinery has been thoroughly overhauled and a number of improvements made in the passenger accommodation. The Chippawa was also given an overhaul before going into service for the season.

The dynamite laden steamer Dorothy was towed into Kingston, Ont., June 1, having broken her propeller at Farran's Point. She was refused admission to the Government dry dock for repairs, the rules not permitting vessels having explosives on board to enter. A new propeller arrived from Buffalo, N.Y., and was placed in position by the Donnelly Salvage and Wrecking Co., a box having been built around the stern to enable this to be done.

The limits of the jurisdiction of the Harbor Master of Fort William, Ont., have been enlarged, the waters of the port now comprising the navigable waters of the Kaministiquia River, including McKellar and Mission channels; and the waters of Thunder Bay, bounded on the north by a line drawn due east from the dividing line between Fort William and Port Arthur, and on the south by a line drawn east from Whisky Jack point, and on the east by the six fathom line.

The Dominion cruiser Vigilant found the U.S. tug Grace M fishing in Lake Erie, over five miles north of the boundary line, June 7. The captain of the tug refused to stop when called upon to do so, and in making an effort to escape by crossing the Vigilant's bow the tug was run down, two of the crew being drowned. At the Government investigation subsequently held the captain of the tug admitted that he was poaching, and had taken over 300 lbs. of fish that morning.

The Department of Trade and Commerce has informed the Dominion Marine Association that no instructions were issued to stop weighing or sampling cargoes after six o'clock p.m., at Port Arthur or Fort William, Ont., and so prevent the loading of vessels. A communication was sent to the C.P.R., however, stating that the samplers would stop whenever it became too dark to properly see the grain. The Inspector of Grain at Fort William states that his men are always ready for duty between daylight and dark.

Three of the 100 ft cribs of the new outer breakwater at Goderich, Ont., which the Government is having built, have been towed into position. Another crib of the same size is being prepared. After the cribs are weighed down with stone, they will be topped with concrete blocks. The footing blocks weigh 5 tons each, and there are two courses of these, which will be topped by 6 ft. of concrete blocks of smaller size. This is the first section of the breakwater and is to be completed by the fall. The contractors are Battle and Conlon, Thorold, Ont.

The Hydraulic Navigation Co. is in process of formation at Hamilton, Ont., for the purpose of developing the invention of J. Dudley, for propelling vessels by a new process. The invention consists of a tube running the full length of the hull, in which valves are arranged. Through the tube water is pumped, and it is claimed that the compression of the water makes the vessel move. A small model was tried in 1904, and a 45 ft. boat was tested in Hamilton bay June 6, it is reported with satisfactory results. The pumping power in the boat was supplied by a 37 h.p. gasoline engine.

The Dominion Marine Association has been advised, in reply to its memorial relative to the new regulations governing the use of winches for hauling vessels into, through and out of, the locks of the Cornwall canal, that the Department of Marine has received reports from the chief officer of the canal to the effect that it does not appear that there are any serious grounds for complaint in the matter. The introduction of the new system, it is stated, is naturally attended with some difficulty, owing to inexperience, neither the crews of the vessels nor the canal lockmen being, at first, as apt at handling the vessels as they will become with practice. The reply is not considered satisfactory, but the association has not decided whether it will take any further immediate action, or wait to see if the faults complained of will be remedied as the lockmen gain experience.

The capital stock of the Bertram Engine Works Co., Toronto, has been acquired by the Canadian Shipbuilding Co., of which F. Nicholls, Second Vice-President and Managing Director of the Canadian General Electric Co., is President, and A. Angstrom, formerly of the Bertram Co., is General Manager. The Bertram Co.'s yards and engine works will be used for the construction of steamers and other vessels of canal size, passenger steamers for the Lake Ontario and St. Lawrence River trade, and steamers for the smaller inland waters. The first vessel to be built under the new control at its yard will be the new steamer for the Niagara Navigation Co. The Canadian Shipbuilding Co.'s new yard at Bridgeburg, on Lake Erie, will be utilized, for the construction of large freight steamers for the Upper Lakes trade. F. Nicholls has been elected President and A. Angstrom Vice-President of the Bertram Engine Works Co.

H. C. Spaulding, of New York, who was the principal promoter of a project for the construction of canals, connected by portage railways, between Georgian Bay and Lake Ontario, near Toronto, which was vetoed at the current session of the Dominion Parliament, attended before the York County Coun-

cil June 5, to explain his project. He said the proposal was to build a ship canal from near Victoria Harbor, Georgian Bay, to Lake Simcoe. Vessels could then use this lake to a second canal which would utilize the channel of the Humber River and terminate in Humber Bay. The rise of 131 ft. from Georgian Bay and the drop of nearly 600 ft. from the height of land to Lake Ontario would be overcome, not by a costly system of locks, but by a system of portage railways over which the vessels would be conveyed by a patented vehicle. This would reduce the cost from \$60,000,000 to about \$35,000,000 and three-fifths of the time of locking would be economized. The council promised to give consideration to the proposal. When the matter previously came up in Parliament the council appeared in opposition to the bill.

The Ontario Government maintains a number of locks and wharves, and spends a considerable sum annually in dredging and otherwise improving the waterways in the Muskoka district. The report of the Minister of Public Works recently issued, gives details of the work done during 1904. The old wharf at Port Carling was repaired and a new addition, 127½ ft. by 16 ft., constructed on an adjoining lot; the wharf above the lock at Magnetawan was rebuilt, and a new lock constructed. Dredging operations were carried on at Burk's Falls, on Ahmic Lake, Goose Lake, and a number of the smaller rivers and lakes in the vicinity. The locks at Port Carling and other points were placed in thorough repair. Following are figures showing the number of steamers, etc., passing through the locks during the year:—

Lock.	Steam- ers.	Small Boats.	Scows.	Timb'r Rafts.
Port Carling.....	3,475	637	738	210
Mary's and Fairy Lake...	596	34	109	63
Magnetawan.....	779	25	280	27
Lindsay.....	218	307	150	103
Young's Point.....	1,344	136	161	252
Balsam River.....	460	129	138	50
Total.....	6,872	1,268	1,576	705

The Transportation Commission held a session at Port Arthur, Ont., June 8, at which J. J. O'Connor recommended the municipalization of as much of the water front as possible and the appointment of a harbor commission. R. Reford, chairman, pointed out that this was a local question, and Mr. O'Connor went on to state that owing to the increasing size of the vessels coming to the port it was necessary to have a greater depth of water in the harbor. He thought there should be a depth of 23 ft. maintained, and that a concrete shore line should be provided so that the dredging could be done up to it. He also advocated the establishment of a clearing elevator, so that vessels should not have to waste time in going from elevator to elevator picking up fragments and ends of grain left. There was also a necessity for further breakwater extension at the port; an icebreaking steamer or tug should be subsidized or maintained by the Government, and the lighthouse season should be extended to Dec 20. The number of vessels reported inwards during the season of 1904 was 657, and outwards, 635. The commissioners promised to take all these matters into consideration in making a report to the Government.

The Northern Navigation Co.'s str. City of Collingwood was burned at her dock at Collingwood, Ont., early on the morning of June 19. The vessel reached port from her regular run to Sault Ste. Marie, June 18, and was subsequently sent out to tow in the Britannic, which had become disabled. The two steamers reached port on the night of June 18. Early next morning the City of Collingwood was discovered to be on fire, and so quickly did the flames spread that it was impossible to save anything, four members of the crew being burned to death before aid could reach them. The str. Britannic was

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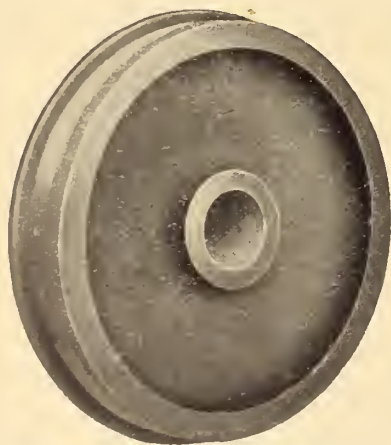
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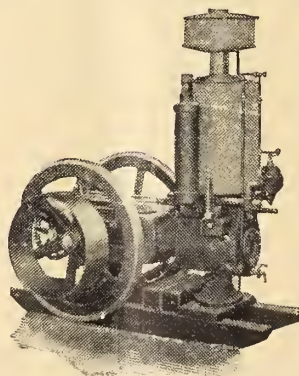
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ESTIMATES PROMPTLY FURNISHED.

towed out of danger, but the G.T.R. freight sheds were considerably damaged. The City of Collingwood was valued at about \$60,000 and was fully insured. The G.T.R. loss is estimated at \$10,000. The City of Collingwood was a screw steamer constructed of wood, in 1893, at Owen Sound, Ont., having the following dimensions: length, 213 ft.; breadth, 34 ft.; depth, 12½ ft.; tonnage—gross, 1,387 tons; register, 893 tons. She was fitted with engines of 107 nominal horse power.

Our Winnipeg correspondent wrote on June 15: "The lake freight business during the past month has been fairly satisfactory to the bulk carriers even in the face of a poor demand for tonnage from the grain trade, as the coal and ore movement for Canadian vessels has so far this season been the best in the history of the lake trade, the steel rail movement taking care of the surplus tonnage to the entire satisfaction of all concerned. The general results have been so satisfactory to vessel men that no less than three new steel steamers with a combined capacity of about 250,000 bush. of wheat are now on order in Great Britain for fall delivery on the Great Lakes, and even with this additional tonnage, the old cry of the grain shippers, of lack of Canadian vessels, will again be heard in the West if the present crop prospects are maintained. The question of more elevators at Eastern ports was brought to the attention of the transportation commission at its recent Winnipeg sitting, and evidence produced showing that the early blocking of the present Ontario elevators last fall, lost a majority of the grain carriers one trip, equivalent to 2,500,000 bush., at the season of the year when most important. This blocking has the effect of driving a large percentage of even a moderate crop to United States channels. The package freight business is also good westbound, and shows some slight signs of improvement eastbound. Rates to Georgian Bay ports 1½c., and to Montreal 3½c. to 4½c., according to the need of the tonnage offering."

The Temagami Navigation Co. has been incorporated under the Ontario Companies' Act with a capital of \$50,000 and offices at Toronto, to carry on a general navigation business, and any other businesses that may be carried on in connection therewith. The provisional directors are—J. E. Russell, S. Hall, J. M. Sinclair, J. Munro, J. J. Main, and A. H. Jeffrey, of Toronto. The object of the company is mainly to place steamers on the Temagami Lake and adjacent waters which, since the opening of the Temiskaming and Northern Ontario Ry., have been attracting an increasing number of tourists. Among those principally interested in the company are, F. B. Polson, J. B. Miller, J. J. Main, and A. H. Jeffrey, all of the Polson Iron Works; J. E. Russell, and J. M. Sinclair, Toronto. The company has acquired two steamers, the Bobs and the Wanda, the former of which has already been transferred from Parry Sound to Temagami Lake. The Wanda, which it is proposed to rename the Temagami, will be taken in by rail from Muskoka early in July, when the Polson Iron Works has delivered a faster yacht which it is building for Mr. Eaton. The Bobs is a screw steamer, hitherto owned by the Parry Sound Lumber Co., and was built at Toronto, 1900, her dimensions being: length, 66 ft.; breadth, 10.5 ft.; depth, 5 ft.; tonnage—gross, 38 tons; net, 26 tons. She is fitted with engines of 6 n.h.p. The Wanda is a screw steam yacht, hitherto owned by T. Eaton, Toronto, and was built there by the Polson Iron Works, 1898. The dimensions are: length, 53.5 ft.; breadth, 8.1 ft.; depth, 4 ft.; tonnage—gross, 12 tons; register, 8 tons. She is fitted with engines of 10 n.h.p. A. H. Jeffrey is manager of the company, and Capt. F. Mackay, of Lefroy, has been appointed local manager at Temagami station.

B.C. and Pacific Coast Shipping.

F. J. Hart & Co., New Westminster, B.C., have been appointed agents there for the Pacific Coast Steamship Co.

At the opening of navigation on the Yukon River, June 1, there was awaiting transportation at Whitehorse, over 3,000 tons of general merchandise.

A steam barge built at Vancouver, B.C., for Capt. J. McDowell, was launched May 26. She is 71 ft. long, 16 ft. beam and 7 ft. depth of hold.

The Dominion Government has let a contract for the construction of a no. 6 order lighthouse at Poulteney point, Malcolm Island, to — Frost of Nanaimo.

The C.P.R. str. Princess Victoria was placed on the Vancouver-Victoria-Seattle run for the season June 1. She makes 340 knots during the round trip, which is made every 24 hours.

A launch for the Vancouver Power Co. was launched at Vancouver at the beginning of June. She is 38 ft. long, with a breadth of 7 ft., and is propelled by twin screws, driven by two 15 h.p. motors.

B.C. press reports state that the C.P.R. will begin the construction at an early date, of a steel steamer for the Nelson-Kootenay Landing run. The steamer, it is stated, will cost \$150,000 and will be built at Nelson, B.C.

Capt. Gaudin, agent of the Department of Marine, has been directed to hold an investigation into the conduct of Capt. Bonser, formerly of the str. Hazleton. The charges made include an alleged attempt to ram a rival steamer on the Skeena River.

A rate war has been started on the Fraser River between the C.P.R. str. Transfer and the Pheasant, the first named having cut the rates. On June 6, the new rates—25c. one way for passengers, and 75c. a ton for freight between New Westminster and Delta points—went into effect.

The str. Le Roi has hoisted the Canadian flag, under the command of Capt. Kickham, and the management of H. A. Jones. Her dimensions are: length, 126 ft. 8 in.; breadth, 21½ ft.; depth of hold, 12 ft.; registered tonnage, 133 tons. She is fitted with triple expansion engines, 11 in., 20 in., and 32 in., diameter, by 23 in. stroke, having 5.13 nominal horse power.

Capt. C. P. Marshall, who has been in command of the C.P.R. Pacific steamer Empress of India, since she was placed on the service in 1891, has retired, and is succeeded by Lieut. Bleatham, R.N.R., heretofore master of the C.P.R. str. Tartar. Capt. Marshall has been appointed a member of the Elder Brethren of Trinity House, the corporation which has charge of the lighthouses round the British coast.

The Minister of Marine recently stated in the House of Commons that the British Government had given over to Canada the work of the hydrographic surveys on the Pacific coast. It was of great importance, he said, that this work should be proceeded with, especially to prepare the way for traffic to Port Simpson. In 1904 a party of inspection had the misfortune to have their vessel run on an uncharted rock.

The recently appointed shipping master at Victoria, B.C., has decided that Capt. Hickey, who holds a certificate granted in Canada, cannot act as master of the C.P.R. str. Princess Victoria, now on the Victoria-Vancouver-Seattle run. The ground on which he bases the decision is that the Princess Victoria, being registered at London, Eng., and running to a foreign port—Seattle, Wash.—must be commanded by a master holding a British certificate. The Minister of Marine has been appealed to by the company.

Manitoba and the Northwest Territories.

A new steamer, Chieftain, has been placed on Lake Winnipeg by J. Sigurdson, making daily trips between Selkirk and Hnausa, calling at Gimli. She is 90 ft. long, with a breadth of 16 ft., and is fitted with compound engine capable of developing 150 h.p.

Admiral Sir C. Markham, speaking in London, Eng., recently expressed regret that the Admiralty had sold the exploration str. Discovery to the Hudson's Bay Co., for its trade between Hudson Bay points and Great Britain. Admiral Markham is an advocate of the opening up of Hudson Bay to navigation by the establishment of a regular port therein.

The Transportation Commission at its recent sittings at Winnipeg took into consideration the questions of the navigation of the Red River, and the promotion of a route to Hudson Bay, with a view of having a regular line of steamers established between a suitable port there and Great Britain. In connection with the first matter it was pointed out that in the early days of Manitoba a fleet of 17 river steamers came to Winnipeg. The U.S. Government had expended a large sum in improving the navigation of the river south of the International boundary. In 1900 the Dominion Government let a contract for the construction of a dam, with a canal and lock, on the river at St. Andrew's rapids, some 18 miles below Winnipeg, but the contractor had done very little work. He has now abandoned his contract, and the plant is to be taken over at valuation by the Government. About \$120,000 had been expended out of the \$500,000 which the work was to have cost. The canal and lock was to have been completed in three years. The Winnipeg Board of Trade urged upon the commissioners the desirability of this work being completed at once so as to provide an 8 ft. waterway between Winnipeg and Lake Winnipeg; and the clearing of the Red River of snags and rocks, between Winnipeg and the International boundary. The board also urged the importance of charting Lake Winnipeg, upon which there was considerable steamer trade; and of improving the Assiniboine and Saskatchewan rivers so as to make them available for navigation. The latter river was at present being navigated by steamers on the northern branch between Edmonton, Lloydminster, Battleford and Prince Albert. Only two barriers of any consequence would have to be cleared on this river and an immediate survey was asked for. R. Reford, chairman of the commission, stated that Lord Strathcona had expressed the opinion that it would not pay to deepen the Saskatchewan so as to make it navigable through to the lake. As far as the Red River was concerned, he did not see there would be much difficulty in making it navigable. Referring to the proposed Hudson Bay route to Great Britain, he said unless there was some other inducement than grain offering there was little use in thinking this route a practicable one. The Board of Trade promised to furnish certain information on specific points mentioned by the chairman, and the commission subsequently heard evidence dealing with the probable traffic, and the improvements thought to be necessary at Port Nelson and Fort Churchill, to provide for the accommodation of vessels having a 27-ft. draught.

Among the Express Companies.

The Western Ex. Co. has opened offices at Paynesville and Karlstad, Minn.

The Canadian Northern Ex. Co. has closed its offices at Wakopa and Homestead, Man.

W. R. Russell has been appointed agent Canadian Northern Ex. Co. at Fort Frances, Ont.

The Alaska Pacific Express Co. has resumed its Yukon service, navigation having been opened June 1.



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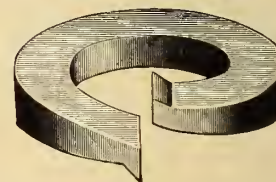
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PIPE LAYING AND CONTRACTING

The Newfoundland Legislature has passed an act imposing a tax of \$2,000 a year on all express companies doing business in the colony.

The Dominion Ex. Co. announced the opening of the remainder of its summer routes on the steamer lines for the current season, June 1.

L. E. Wright has been appointed agent Canadian Ex. Co., at Collingwood, Ont., succeeding A. Henser, who has resigned to go to the Northwest.

The names of the Dominion Ex. Co.'s offices at Rat Portage, Ont., and Arundel, Que., have been changed to Kenora and Huberdeau respectively.

The Dominion Ex. Co.'s general circular no. 77 contains lists of the points to which Boundary district, Kootenay district, and Puget Sound point rates apply.

The Canadian and American Ex. Co.'s are arranging for a new office in St. John, N.B., the present offices not having the yard accommodation required by the increased business.

The Dominion Ex. Co. has placed its service on the Tillsonburg, Lake Erie and Pacific Ry., and has opened offices in connection therewith at Eden, Mount Elgin, Port Burwell, Salford, Staffordville, Tillsonburg and Vienna, Ont.

The Canadian Northern Ex. Co. has adopted the new uniform money order. The new issue is in light and dark chocolate, with the company's trade mark in the centre and the words "Canadian Northern Express Co." in minute type covering the background.

D. J. McFeggan, heretofore Route Agent Dominion Ex. Co., at North Bay, Ont., has been appointed Route Agent at Toronto, succeeding C. A. Dobson, transferred, and W. Aitchison, heretofore agent at Sault Ste. Marie, Ont., has been appointed Acting Route Agent at North Bay, and is succeeded by H. E. Baker.

The Dominion Express Co. and the C.P.R. Telegraphs have heretofore had a joint agency at Hamilton, Ont., in charge of C. J. Jones. Owing to increased business it has been found necessary to establish separate offices. The Dominion Express office has been opened at 10 James St. south, with C. A. Dobson, heretofore route agent at Toronto as agent. C. J. Jones remains as agent of the C.P.R. Telegraphs, with office at 8 James St. south.

The Canadian Northern Ry. has completed its main line construction as far west as Battleford, Sask., and the Canadian Northern Ex. Co. is placing a service on that section with offices at Carnel, Bruno, Dana, Lally, Vonda, Aberdeen, Clarkboro, Warman, Dalmeny, Elbow, Lacrosse, Baltimore, Goodrich, Hartboro, Maymont, Lucerne, Denholm, Brada, North Battleford. The company also expects to operate very shortly a service on new short line built by the C.N. Ry. between Winnipeg and Brandon, Man.

Telegraph and Cable Matters.

The G.N.W. Telegraph Co. moved into its new offices, St. Peter St., Quebec, early in June.

The C.P.R. Telegraph Department has arranged to inaugurate a call-box and telegraph messenger service in Quebec city.

The C.P.R. Telegraph Department announces a reduction of 20c. a word in cable rates to Japan, taking effect July 1.

The Canadian Northern Telegraph Co. recently announced a reduction of rates between Port Arthur, Ont., and Winnipeg.

J. H. Kent, Manager C.P.R. Telegraph Department, has been elected an honorary member of the American Association of Railway Telegraph Superintendents.

The Canadian Northern Telegraph Co. has opened offices at the following points: Fork River, Mafeking, Sanford, St. Laurent, Marchand, Ogilvie, Underhill, Man.; Humbolt, Melfort, N.W.T.

The Cunard str. *Campania*, on a recent voyage, while in mid-ocean, was in communication with the Marconi wireless telegraph stations in England and on the American coast at the same time.

The Western Union Telegraph Co. is installing a telegraphic call-box system in St. John, N.B. The C.P.R. Telegraph Department has decided to install a call-box system there and at Halifax, N.S.

The Marconi wireless telegraph station, which the Dominion Government is fitting up on Sable Island, was expected to be completed by the end of June. It will communicate with the recently completed station at Camperdown, N.S.

Referring to the new cable tax in Newfoundland, the Premier recently stated it was the intention to charge the Marconi Wireless Telegraph Co. \$4,000 for each of its three stations, established without official sanction, in the island if it were proved that a commercial business was being done.

The C.P.R. Telegraph Department has opened offices at Maryville, Ryan, B.C.; Harding, Man.; Filmore, Forget, Francis, Howard, Leavings, Redvers, Walsh, N.W.T.; International Pier, Stellarton, N.S.; Bouchette, Que., in addition to opening offices at tourist points for the summer season.

In connection with the corps of engineers branch of the Canadian militia, a field telegraph company is to be organized. The present equipment of this company will consist of two cable wagons with four drums, each containing two miles of wire, and the other necessary fixtures and instruments.

The Fessenden Wireless Telegraph Co.'s station at Ottawa has not proved a success, and it is stated that a new site will have to be chosen. The Dominion charter, which the company is applying for, is similar to that already granted to the Marconi Wireless Telegraph Co. The location of the stations, etc., will be subject to the approval of the Governor-in-Council.

The Postal Telegraph Cable Co. has issued a notice calling attention to the fact that the British Pacific cable route to Australia, Fanning Island, Fiji Island, New Caledonia, New Zealand, Norfolk Island and Tasmania, offers the cheapest tariff to the places named from all points in the U.S., and directing that unless specially routed otherwise by the sender, all messages are to be sent by the British line.

The Government telegraph lines in the Northwest Territories and British Columbia have been placed under the charge of J. S. Macdonald of Qu'Appelle, Assa., with the title of General Inspector of Government Telegraphs. The Yukon telegraph line from Ashcroft, B.C., to the Alaskan boundary will also be under the charge of a General Inspector of Government Telegraphs, J. E. Gobcil having been appointed to that position. His headquarters have not yet been fixed.

A. B. Macdonald, of Meat Cove, N.S., has been appointed Inspector of the Dominion Government Telegraph lines in Nova Scotia and New Brunswick. The department is about to have a building for office and dwelling erected at Bay St. Lawrence, 12 miles from Meat Cove, to which point the Magdalen Islands and St. Paul's cable terminals will be carried for more convenient operation. For the present Mr. Macdonald's headquarters will be at Meat Cove, but, later on, he may be

moved to Bay St. Lawrence. His title will be General Inspector Cape Breton Telegraphs.

M. W. Crean, who is at present superintending the construction of a telegraph line paralleling the cable stretch between Ber-simis and Manicouagan, rendered desirable in consequence of the liability of the cable to interruptions and delays, has been appointed Inspector for the Government telegraph lines below Quebec, on the north shore of the St. Lawrence to Chateau Bay, and in the counties of Montmorency, Charlevoix, Chicoutimi and Saguenay, including Grosse Isle. His title will be General Inspector of North Shore Telegraphs, and his headquarters will be at Quebec.

The U.S. Signal Corps has issued a map showing its telegraph lines in Alaska, and the cable connection with Seattle, Wash. The junction points with the Canadian telegraph lines in Yukon Territory are also shown. The telegraph line extends from Valdes to the Yukon boundary, near Eagle City, 437 miles; with a branch from Ketchumstock to St. Michael, 817 miles, and from Safety to Nome, 24 miles; St. Michael and Safety, 107 miles, are connected by wireless telegraph apparatus. The land lines and the wireless stations cover 1,385 miles. The cable system extends from Seattle to Valdes, with a branch from Sitka to Skagway, a total of 1,666 miles.

According to the figures contained in the recent budget speech of the Minister of Finance of Newfoundland, the colony expended during 1904 \$6,000 on Marconi wireless telegraph apparatus for the Labrador coast, and \$1,250 for alterations at the post office for the telegraph service. Out of the surplus revenue it was proposed to expend \$14,000 for an extension of the Marconi wireless telegraph system and \$10,000 on new postal and telegraph offices. The general estimates for the current year provide \$350,014 for post office and telegraph purposes, and the estimated receipts show \$48,000 from telegraphs, and \$22,800 from the cable and telephone tax. A resolution imposing a tax of \$4,000 is levied on every cable landed in the colony. The Government has in contemplation the laying of a cable between Basque, Nfld., and Canso, N.S. For this purpose, and for the purpose of extending the telegraph lines in the island a loan of £68,500 is being arranged. At the same time a loan of £322,717 will be raised to pay the telegraph award to the Reid-Newfoundland Co.

The Marconi wireless telegraph station near Halifax, N.S., was completed June 3. It is located close to the Camperdown signal station of the Imperial Government, some 14 miles down the harbor from the city of Halifax. It is said to be complete in every detail and is reported to be now in perfect working order. The Marconi construction crew is now at Sable Island erecting a station. This station is expected to be completed early in July, and the Marconi Co. expects to get messages through between Camperdown and Sable Island on July 1. These stations are the two most important ones for navigation and commercial purposes in North America. An average of five vessels fitted with Marconi wireless apparatus pass within radius of the Sable Island station every day, and the Marconi Co. officials expect that they will receive an average of at least 60 commercial messages a day from these vessels. These messages will be retransmitted to the Camperdown station. Both the C.P.R. and the Western Union Telegraph companies are putting in wires to this latter station. This will ensure a good land wire service, and it is now only a question of a few weeks before a passenger on board a New York liner will be able to be in telegraphic touch within a radius of 150 miles from Sable Island. During the



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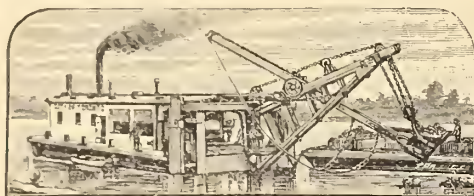
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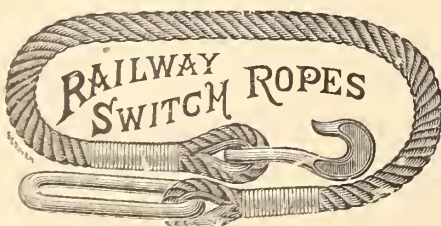
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past years there has been an average of three wrecks per year on Sable Island, and no means have been available of learning of these disasters beyond reports from ships that happened to pass close to the island. In future, however, reports of shipwrecks should be known throughout the world within a few minutes after the disaster has occurred.

A paper on high tension wires on railway right-of-way, read by W. J. Camp, Electrical Engineer, C.P.R. Telegraphs, before the American Association of Railway Telegraph Superintendents, was published in our last issue. In the discussion which followed, Mr. Kinsman, Wabash Rd., stated that Michigan had a somewhat similar law to that of Canada. The Secretary said that the minutes of the 1902 meeting contained a report on the subject. Mr. Chenery, Missouri Pacific Rd., stated that Kansas had passed a law this year giving rules for crossing railways. All poles to be of sound timber, 6 inch tops, 5 ft. in ground, wires 25 ft. above rail, poles braced and guyed, arms braced, poles not less than 10 ft. nor more than 52 ft. from the rail. To cross at right angles to track wherever practicable, clear telegraph wires at least 2 ft. If underground, to be not less than 3 ft. below rail. Notice of intention to cross to be served on nearest station agent, etc. Trolley wires to be at least 22 ft. above rails and supported on poles with 7 inch tops, the companies crossing the railway to maintain in proper order, etc. Mr. Kaiser, Missouri and Kansas Telegraph Co., said this law had been brought about through the Union Pacific Rd. A farmer's telephone line had caught and killed a brakeman. Mr. Miller, Superintendent Western Union Telegraph Co., Cincinnati, said that the bad effects from high tension lines was becoming very serious. From Indianapolis to Rushville, 35 miles, an alternating current line paralleled their wires, and prevented them working wheatstone, quad or tickers on that route, although the transmission line was 300 ft. from the W.U. wires. A box relay placed on one of the telegraph circuits simply roars, but they were able to work ordinary morse and duplex. This line will be extended to 95 miles, and he expects still more trouble. When the transmission line only extended for 15 or 20 miles they did not experience any trouble. There are substations every 10 miles for supplying a trolley line with alternating current power. A committee consisting of E. P. Griffith and L. B. Foley, of New York, and C. P. Adams, of the Southern Ry., Washington, D.C., was appointed to bring this matter to the attention of the American Railway Association, with the object of having that body request all state legislatures to enact laws for the protection of the railroads from the erection of wires over their rights-of-way.

Aliens in the G.N.W.T. Co.

In the House of Commons, June 19, F. D. Monk, M.P., brought up the question of what he described as "an impending danger to the Canadian telegraph system by the Americanizing of a portion of that system in violation of the provisions of the alien labor act." He referred particularly to the Americanizing of the G. N. W. Telegraph Co. About 20 years ago that system had been formed by interests controlled by the Western Union Telegraph Co., by an absorption of the Montreal, Dominion and Mutual Union Telegraph Companies in this country. A certain dividend was guaranteed, and the new company had operated the system ever since. Not much attention was paid to it at the time, but within the last two or three years the attention of the U.S. capitalists interested had been directed anew, and since that time they had undertaken to completely

Americanize the system, and in doing so they were violating the alien labor act. Mr. Monk quoted newspaper clippings, relating to some of the appointments of U.S. citizens recently made by the company. These included the dismissal of T. Rodgers, chief operator at Montreal, and the probable withdrawal of Manager Powell and the chief accountant; the appointment of I. McMichael, of Minneapolis, as General Manager, to succeed H. P. Dwight, and S. B. McMichael, of Chicago, as superintendent at Toronto. The attention of the Department of Labor was drawn to this, but when they looked into it, S. B. McMichael was temporarily withdrawn, said to have been owing to illness. Later F. R. Carney, of Chicago, was appointed local manager at Ottawa, in place of Mr. Bethune, and Mr. Callaghan, of Chicago, was brought to Montreal as cashier. Several minor appointments had also been made, and he had been informed that it was in contemplation to bring linemen from Boston to Montreal to operate there in place of the present employees. Mr. Monk said it was not in the interest of Canadians that the service of that company should be placed in the hands of aliens, as he had indicated. If the law was being violated there should be a prompt remedy. If Judge Anglin's decision was well founded it might be necessary for the Government to make some changes in the law to protect Canadians. It was, of course, hostile legislation, but it had been commenced by the U.S., and as long as they enforced it, it was the duty of the Government to protect labor in our own country.

Sir Wilfrid Laurier said it had been understood when the G.N.W. Telegraph Co. was incorporated that a large amount of U.S. capital was being invested in it. It had not been, however, provided that a certain proportion of directors should be British subjects.

Mr. Monk interrupted to say he thought there was a provision that a majority of directors should be British subjects. At all events there were only two U.S. directors—I. McMichael and B. Brooke. The Canadian directors are H. N. Baird, W. C. Matthews, Adam Brown, J. Hedley and, until he died recently, Hon. Wm. McDougall. The board were not, however, consulted in regard to these changes.

"Then," commented Sir Wilfrid, "these offences have been committed, or at all events sanctioned, by the Canadian directors." Sir Wilfrid said there appeared to be a misapprehension in regard to the matter. From information which he had received only one of the officials mentioned by Mr. Monk had been replaced by a U.S. citizen, Mr. Bethune, at Ottawa. The others had all been replaced by Canadians. However, the Government would look into the matter. "We had an alien labor law three days ago, but it is a question if we have one now," Sir Wilfrid added, smiling.

"Is there no appeal from that?" asked Mr. Foster.

"The Judge says not," observed Mr. Fitzpatrick.

"I am not sure; all these things will have to be looked into," the Prime Minister added. "It was taken in self-defence, and I hope we still have the act."

Mr. Monk concluded the discussion by repeating his firm belief in the truth of the statements he made, saying there was no doubt about the facts.

The Dominion Line Str. Scotsman was wrecked at East Point in the Gulf of St. Lawrence, Oct., 1898, and no serious attempt was made at recovering the cargo which was valued at over \$750,000. The St. Lawrence Floating and Wrecking Co. has fitted out a schooner with the necessary apparatus, and expects to save a good deal of the cargo.

General Telephone Matters.

The Bell Telephone Co. is arranging for the erection of a new office at Brantford, Ont.

The B.C. Telephone Co. is reconstructing the 25 miles of line between Phoenix and Cascade, B.C.

The Newfoundland Government has passed a resolution to collect a tax of \$4 upon all telephones in use in the colony.

J. M. Martin, the Bell Telephone Co.'s local manager at Barrie, Ont., absconded recently. An audit of his accounts showed a shortage of \$1,200.

The Nova Scotia Telephone Co. is arranging to extend its underground conduit system in Halifax, in order to meet the objections to the pole lines.

The B.C. Telephone Co. has purchased three lots on the west side of Seymour St., New Westminster, for the purpose of erecting a central exchange and office building.

The Bell Telephone Co. entertained the House of Commons Committee on Telephones at luncheon, on the occasion of their visit to Montreal, May 27. The committee inspected the company's exchanges, etc.

E. H. Farrow, local manager of the Bell Telephone Co., at Belleville, Ont., was recently presented with a gold cross by the Boys' Brigade of St. Thomas' Church, of which he had been instructor, on the occasion of his removal from the city.

At the recent session of the Ontario Legislature an amendment to the assessment act was proposed, by which telephone companies were to be assessed at the rate of \$135 a mile in addition to the assessment on gross earnings. The bill was withdrawn.

During the absence of Sir Wm. Mulock in England, A. Zimmerman, M.P. for Hamilton, Ont., is acting as chairman of the House of Commons Telephone Committee. He stated that there would not be any legislation this session as the outcome of the committee's work.

The Wallacetown and Lake Shore Telephone Association has completed the installation of a local line of 18 instruments extending from Port Talbot to three miles west of Wallacetown, Ont. The rental has been placed at \$4 a year. Dr. Crane, Wallacetown, is Secretary-Treasurer of the association.

The Russell Telephone Co. has been incorporated under the Manitoba Companies' Act, with a capital of \$5,000 for the purpose of establishing a telephone system in the rural municipalities of Russell, Silver Creek, Boulton and Shell River. The provisional directors are: A. Gale, P. Smellie, W. J. Doig, J. J. Moon, T. A. Wright, and A. Tingley. Office, Russell.

The Bell Telephone Co. is increasing its capital to \$9,000,000 by the issue of an additional \$1,000,000 of stock at \$125. Shareholders of record June 15, were entitled to subscribe for one share of the new stock for each eight shares of old stock held. Payment is to be made in five instalments of \$25 per share: July 3, Oct. 2, 1905, and Jan. 2, April 2, and July 2, 1906.

The North Wellington Telephone Co. has been incorporated under the Ontario Companies' Act, with a capital of \$15,000 and offices at Arthur, Ont., to carry on a general telephone business in Wellington county, and the townships of East Luther and East Garafraxa in Dufferin county. The provisional directors are: M. Heffernan, D. Brocklebank, J. Goetz, G. Dodge, H. J. Colwill, J. M. Roach and J. H. Thomas.

It was recently stated that an arrangement had been arrived at between the C.P.R. and the municipal authorities of Port Arthur and Fort William, Ont., as to the compensation to

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Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	".....1,000,000 "
Erie R. R. Transfer & Clipping House, Chicago, Ill.	" 100 cars in 10 hrs.
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	".....1,500,000 "
Burlington Elevator Co., Peoria, Ill.	".....500,000 "
Canada Atlantic Railway Elevator, Coteau Landing, Que.	".....500,000 "
Northern Grain Co., Manitowoc, Wis.	".....1,350,000 "
Union Elevator, East St. Louis, Ill.	".....1,100,000 "
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be paid to secure the installation of the municipal telephone system to the railway stations there. Any arrangement made will do away with the necessity of the appeal to the Supreme Court which it was proposed to make. The arrangement will be confirmed in a judgment of the Railway Commission.

The Bell Telephone Co.'s new up-town exchange in Montreal will be situated on Mountain St., and will have a frontage of 56 ft., with a depth of 114 ft. The building will be set back from the street 15 ft., and will conform to the residential character of the street. In the basement in addition to the furnace room, etc., will be the runways for the cables; on the first floor will be the public room, room for batteries, etc., and the 10,000 instrument switchboard will be placed on the second floor.

The New Brunswick Telephone Co.'s annual meeting was held at Fredericton, June 12, when it was decided to make a number of extensions during the current year. These lines will include one from Chatham to Dalhousie, connecting with Bathurst, Campbellton and other places along the north shore; one from Canterbury to McAdam; one from St. Stephen to Moore's Mills, and one from Lepreaux to Musquash. It was also decided to erect a \$6,000 building on Carleton St., Fredericton, for head offices; to extend and improve the lines in Moncton, and to extend the line to Edmondston, to connect with the line of the Kamarouska Telephone Co. A dividend of 4% was declared for the half year. The officers and directors for the current year are: President, Hon. A. G. Blair; Vice-President, J. L. Black; Treasurer, Hon. F. P. Thompson; Secretary, W. E. Smith; other directors: Dr. Stockton, M.P., St. John; C. F. Sise, Montreal; C. Fawcett, W. T. Whitehead, M.P.

PURCHASING AGENTS' GUIDE.

(Continued from third page of cover.)

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Crossen Car Mfg. Co. Cobourg, Ont.
F. M. Hicks & Co. Chicago, Ill.
Rhodes, Curry & Co. Amherst, N.S.

Car Ranges

Geo. R. Prowse. Montreal.

Castings

Crossen Car Mfg. Co. Cobourg, Ont.

Castings (Steel)

W. Kennedy & Sons, Ltd. Owen Sound, Ont.
Montreal Steel Works. Montreal.
Rhodes, Curry & Co. Amherst, N.S.

Cast-Steel Hammers

American Brake Shoe & F'dry Co. Mahwah, N.J.

Cast-Steel Track Tools

American Brake Shoe & F'dry Co. Mahwah, N.J.

Cast-Steel Wrenches

American Brake Shoe & F'dry Co. Mahwah, N.J.

Cement

Thorn Cement Co. Buffalo, N.Y.

Cement Machinery

Jas. W. Pyke & Co. Montreal.

Coal Haulage Ropes

The B. Greening Co. Hamilton, Ont.

Concrete

Thorn Cement Co. Buffalo, N.Y.

Concrete Mixers and Rock Crushers

Goold, Shapley & Muir Co. Brantford, Ont.
F. H. Hopkins & Co. Montreal.
W. H. C. Mussen & Co. Montreal.
Toronto Pressed Steel Co. Toronto.

Conduit Contractors

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Contractors

F. T. Ley & Co. Springfield, Mass.

Contractors' Plant

M. Beatty & Sons. Welland, Ont.
F. H. Hopkins & Co. Montreal.
The W. H. Kelson Co. Montreal.
T. A. Morrison & Co. Montreal.
W. H. C. Mussen & Co. Montreal.
Toronto Pressed Steel Co. Toronto.

Contractors' Supplies

J. A. Dawson & Co. Montreal.
Toronto Pressed Steel Co. Toronto.

Cooking Apparatus

Geo. R. Prowse. Montreal.

Copperware

Geo. R. Prowse. Montreal.

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Continental Iron Works. Brooklyn, N.Y.

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Canadian General Electric Co. Toronto.
The Firstbrook Box Co. Toronto.

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Canadian General Electric Co. Toronto.
Montreal Rolling Mills Co. Montreal.
Toronto Bolt and Forging Co. Toronto.

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General Railway Signal Co. Buffalo, N.Y.
The N. L. Piper Railway Supply Co. Toronto.

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Toronto Bolt and Forging Co. Toronto.

Culvert Pipe (Cast Iron)

Gartshore-Thompson Pipe & F'dry Co. Hamilton.

Cuts

Aetion Burrows Co. Toronto.

Derrick Ropes

Dominion Wire Rope Co. Montreal.
The B. Greening Co. Hamilton, Ont.

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M. Beatty & Sons. Welland, Ont.
F. H. Hopkins & Co. Montreal.
W. H. C. Mussen & Co. Montreal.

Diving Outfits

W. H. C. Mussen & Co. Montreal.

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American Brake Shoe & F'dry Co. Mahwah, N.J.

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F. T. Ley & Co. Springfield, Mass.

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Canadian Steel and Wire Co. Hamilton, Ont.
Cyclone Woven Wire Fence Co. Toronto.
Owen Sound Wire Fence Co. Owen Sound, Ont.
Page Wire Fence Co. Walkerville, Ont.

Fire Brick

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W. H. C. Mussen & Co. Montreal.

Fire Escapes

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Headlinings

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Heating for Power Plants

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Iron, Pig

John McDougall & Co. Montreal.

Iron Signs

Aetion Burrows Co. Toronto.

Japans

McCaskill, Dougall & Co. Montreal.

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(Continued on page 335.)

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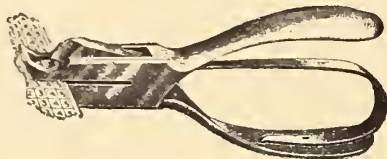
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PURCHASING AGENTS' GUIDE.

(Continued from page 333.)

Lager Beer, &c.
E. L. Drewry.....Winnipeg.

Lamps, Incandescent
Canadian Westinghouse Co.....Hamilton, Ont.

Lamps and Lanterns
The Hudson's Bay Company.....
N. L. Piper Railway Supply Co.....Toronto.

Lathes
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.
Williams & Wilson.....Montreal.

Launches
Polson Iron Works.....Toronto.

Lights, Contractors' and Wrecking
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Lithographing
Rolph & Clark (Ltd.).....Toronto.

Locomotive Boiler Washer, Automatic
Erie Heating Co.....Chicago, Ill.

Locomotive Driver Brake Shoe
American Brake Shoe & F'dry Co., Mahwah, N.J.

Locomotives (Compressed Air)
Baldwin Locomotive Works.....Philadelphia, Pa.
Locomotive and Machine Co. of Montreal.

Locomotives (Electric)
Baldwin Locomotive Works.....Philadelphia, Pa.
Canada Foundry Co.....Toronto.
Locomotive and Machine Co. of Montreal.

Locomotives (Logging)
Lima Locomotive and Machine Co., Lima, Ohio.

Locomotives (Rack)
Baldwin Locomotive Works.....Philadelphia, Pa.
Locomotive and Machine Co. of Montreal.

Locomotives (Steam)
Baldwin Locomotive Works.....Philadelphia, Pa.
Canada Foundry Co.....Toronto.
Canadian Locomotive Co.....Kingston, Ont.
F. M. Hicks & Co.....Chicago, Ill.
F. H. Hopkins & Co.....Montreal.
The W. H. Kelson Co.....Montreal.
Lima Locomotive and Machine Co., Lima, Ohio.
Locomotive and Machine Co. of Montreal.

Locomotive Stack Netting
The G. B. Meadows Wire, etc., Co.....Toronto.

Locomotive Tile
Garden City Sand Co.....Chicago, Ill.

Machine Tools
W. Abbott.....Montreal.
H. W. Petrie.....Toronto.
Williams & Wilson.....Montreal.

Machine Screws, Set Cap and Planer
John Morrow Machine Screw Co.....Ingersoll.

Machinery, Marine
Sheriffs Mfg. Co.....Milwaukee, Wis.

Machinery Repairs, Marine
Sheriffs Mfg. Co.....Milwaukee, Wis.

Manganese Steel Castings
Montreal Steel Works.....Montreal.

Manhole Frames and Covers
American Brake Shoe & F'dry Co., Mahwah, N.J.

Maps
Rolph & Clark (Ltd.).....Toronto.

Marine Insurance
Dale & Co.....Montreal.

Mats and Matting
The Canadian Rubber Co. of Montreal.

Mechanical Draft Fans
Babcock & Wilcox (Ltd.).....Montreal.

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Acton Burrows Co.....Toronto.

Milling Cutters
W. Abbott.....Montreal.
Williams & Wilson.....Montreal.

Milling Machines
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Mills, Boring and Turning
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

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J. A. Dawson & Co.....Montreal.

Moulding Sand
Garden City Sand Co.....Chicago, Ill.

Nickel
The Orford Copper Co.....New York.

Nickel for Nickel Steel
The Orford Copper Co.....New York.

Numbers
Acton Burrows Co.....Toronto.

Nuts, Cold Pressed
John Morrow Machine Screw Co.....Ingersoll.

Nuts, Square and Hexagon
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Oakum
The Hudson's Bay Company.....

Office Desks
Canadian Office & School Furniture Co., Preston, Ont.

Office Fittings
Canadian Office & School Furniture Co., Preston, Ont.

Office Railings
The G. B. Meadows Wire, etc., Co.....Toronto.

Office Signs
Acton Burrows Co.....Toronto.

Oils
Galena Signal Oil Co., Franklin, Pa., and Toronto.

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The N. L. Piper Railway Supply Co.....Toronto.
Williams & Wilson.....Montreal.

Packing, High Pressure Sheet
The Canadian Rubber Co. of Montreal.

Packing, Piston
The Canadian Rubber Co. of Montreal.

Paints, Acid Proof and Anti-rust
American Asphaltum & Rubber Co., Chicago, Ill.

Paints, Asphaltum
American Asphaltum & Rubber Co., Chicago, Ill.

Paints, Bridge
American Asphaltum & Rubber Co., Chicago, Ill.

Paints, Locomotive Front end
American Asphaltum & Rubber Co., Chicago, Ill.

Paints, Mineral Rubber
American Asphaltum & Rubber Co., Chicago, Ill.

Paints, Structural Iron
American Asphaltum & Rubber Co., Chicago, Ill.

Pinch Bars
The N. L. Piper Railway Supply Co.....Toronto.

Pipe
Erie Heating Co.....Chicago, Ill.

Pipe and Pipe Coverings
W. C. Baker.....New York.

Pipe Covering
Mica Boiler Covering Co.....Montreal.

Planers
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Ploughs, Contractors'
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Porter
E. L. Drewry.....Winnipeg.

Portable Boilers
Babcock & Wilcox (Ltd.).....Montreal.
Canada Foundry Co.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Portland Cement
Thorn Cement Co.....Buffalo, N.Y.

Power Plants, Contractors'
Erie Heating Co.....Chicago, Ill.

Printing
The Hunter, Rose Co.....Toronto.
The Mail Job Printing Company.....Toronto.

Propeller Wheels
W. Kennedy & Sons (Ltd.), Owen Sound, Ont.
Sheriffs Manufacturing Co.....Milwaukee, Wis.

Pumps
Canada Foundry Co.....Toronto.
Erie Heating Co.....Chicago, Ill.
Goold, Shapley & Muir Co.....Brantford, Ont.

Pumps (Centrifugal)
M. Beatty & Sons.....Wells, Ont.

Punches
F. J. Myers Mfg. Co.....Hamilton, Ohio.

Punching and Shearing Machines
The John Bertram Sons Co.....Dundas, Ont.

Rail Benders, Roller
Montreal Steel Works.....Montreal.

Rails (new)
Drummond, McCall & Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.

Rails (for relaying)
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.
T. A. Morrison & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.

Railway Equipment
F. M. Hicks & Co.....Chicago, Ill.

Railway Interlocking
General Railway Signal Co.....Buffalo, N.Y.

Railway Pile Drivers
W. H. C. Mussen & Co.....Montreal.

Railway Signalling
General Railway Signal Co.....Buffalo, N.Y.

Railway Supplies
J. A. Dawson & Co.....Montreal.
The W. H. Kelson Co.....Montreal.
The N. L. Piper Railway Supply Co.....Toronto.

Reamers
W. Abbott.....Montreal.

Refrigerators
Geo. R. Prowse.....Montreal.

Ribbons and Carbon Paper
United Typewriter Co.....Toronto.

Rivets, Boiler, Bridge and Structural
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Rolled Wheels
Standard Steel Works.....Philadelphia, Pa.

Rolls, Plate Bending
The John Bertram Sons Co.....Dundas, Ont.

Roof Trusses
Canada Foundry Co.....Toronto.
Dominion Bridge Co.....Montreal.

Roofing Composition
American Asphaltum & Rubber Co., Chicago, Ill.

Roofing Pitch
American Asphaltum & Rubber Co., Chicago, Ill.

Roofing, Ready
American Asphaltum & Rubber Co., Chicago, Ill.

Roofs, Car
American Asphaltum & Rubber Co., Chicago, Ill.

Rope
The Hudson's Bay Co.....

Rotary Snow Ploughs
Crossen Car Mfg. Co.....Cobourg, Ont.

Rubber Tiling, Interlocking
The Canadian Rubber Co. of Montreal.

Sand, White
Garden City Sand Co.....Chicago, Ill.

Saw Steel
Montreal Steel Works.....Montreal.

Scrapers (Wheel and Drag)
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Screws, Coach and Lag
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Semaphore Arms
Acton Burrows Co.....Toronto.

Semaphores
The N. L. Piper Railway Supply Co.....Toronto.

Sewer Pipe (Cast Iron)
Gartshore-Thompson Pipe & F'dry Co., Hamilton.

Shaking Grates
Babcock & Wilcox (Ltd.).....Montreal.

Shaping Machines
The John Bertram Sons Co.....Dundas, Ont.

Ship Lamps
The N. L. Piper Railway Supply Co.....Toronto.

Ships
Canadian Shipbuilding Co.....Toronto.
Polson Iron Works.....Toronto.

Shovels
F. H. Hopkins & Co.....Montreal.
The Hudson's Bay Co.....

Side Bearings
Simplex Railway Appliance Co.....Montreal.

Signal House Numbers
Acton Burrows Co.....Toronto.

Signals
General Railway Signal Co.....Buffalo, N.Y.
N. L. Piper Railway Supply Co.....Toronto.

Signs
Acton Burrows Co.....Toronto.

Slack Adjusters
Chicago Railway Equipment Co.....Chicago, Ill.

Slotting Machines
The John Bertram Sons Co.....Dundas, Ont.

Snow Ploughs
Crossen Mfg. Co.....Cobourg, Ont.
Rhodes, Curry & Co.....Amherst, N.S.

Specialties in Brass and Iron Wire
The G. B. Meadows Wire, etc., Co.....Toronto.

Speedient High Speed Steel
Montreal Steel Works.....Montreal.

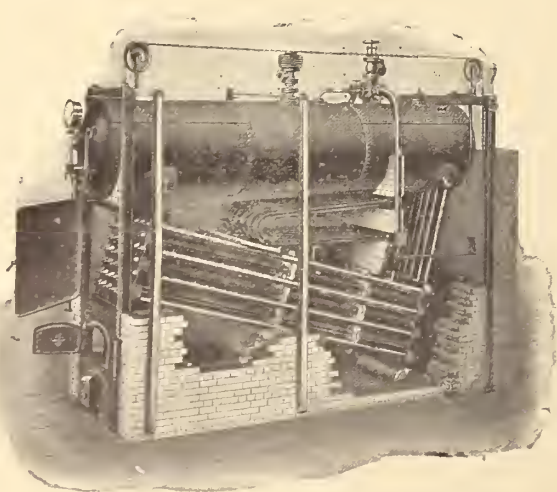
Spikes, Railway, Ship or Pressed
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Springs
Montreal Steel Works.....Montreal.
Standard Steel Works.....Philadelphia, Pa.

Station and Tower Heaters
W. C. Baker.....New York.

Stationery
Rolph & Clark (Ltd.).....Toronto.

Station Name Signs Acton Burrows Co. Toronto.	Tests R. W. Hunt & Co. Montreal. H. Jarvis & Co. Chicago, Ill. Standard Inspection Bureau. Toronto.	Washers Montreal Rolling Mills Co. Montreal.
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Steam Couplers Safety Car Heating and Lighting Co. New York.	Ticket Wickets The G. B. Meadows Wire, etc., Co. Toronto.	Water Filters Geo. R. Prowse. Montreal.
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Steam Shovels M. Beatty & Sons. Welland, Ont. F. H. Hopkins & Co. Montreal. W. H. C. Mussen & Co. Montreal.	Time Table Racks The G. B. Meadows Wire, etc., Co. Toronto.	Water Softeners Babcock & Wilcox (Ltd.) Montreal.
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Steamships Canadian Shipbuilding Co. Toronto. Polson Iron Works. Toronto.	Tool Steel W. Jessop & Sons. Sheffield, Eng. Montreal Steel Works. Montreal.	Wheels, Car John McDougall & Co. Montreal. Jas. W. Pyke & Co. Montreal. Rhodes, Curry & Co. Amherst, N.S. Standard Steel Works. Philadelphia, Pa.
Steamship Signs Acton Burrows Co. Toronto.	Towers Goold, Shapley & Muir Co. Brantford, Ont.	Wheels, Locomotive John McDougall & Co. Montreal.
Steam Steering Engines for Tugs Sheriffs Mfg. Co. Milwaukee, Wis.	Track Jacks F. H. Hopkins & Co. Montreal. Montreal Steel Works. Montreal. W. H. C. Mussen & Co. Montreal. A. O. Norton. Coaticook, Que.	Wheels, rolled, solid forged Standard Steel Works. Philadelphia, Pa.
Steel W. Abbott. Montreal. F. H. Hopkins & Co. Montreal. Wm. Jessop & Sons. Sheffield, Eng. Williams & Wilson. Montreal.	Track Tools F. H. Hopkins & Co. Montreal. Montreal Steel Works. Montreal. W. H. C. Mussen & Co. Montreal.	Wheels, steel tired Standard Steel Works. Philadelphia, Pa.
Steel Buildings Canada Foundry Co. Toronto. Dominion Bridge Co. Montreal.	Tracklaying Lorries Crossen Car Mfg. Co. Cobourg, Ont.	Windmills Ontario Wind Engine and Pump Co. Toronto.
Steel for Springs James Hutton & Co. Montreal.	Tramway Equipment J. J. Gartshore. Toronto.	Wire and Wire Rope Dominion Wire Rope Co. Montreal. The B. Greening Co. Hamilton, Ont. W. H. C. Mussen & Co. Montreal. The Wire and Cable Co. Montreal.
Steel Plate Jas. W. Pyke & Co. Montreal.	Trucks (Electric Car) Baldwin Locomotive Works. Philadelphia, Pa. Canada Foundry Co. Toronto. Montreal Steel Works. Montreal.	Wire Cloth The B. Greening Co. Hamilton, Ont. F. J. Myers Mfg. Co. Hamilton, Ohio.
Steel, Nickel for Nickel The Orford Copper Co. New York.	Trucks (Railroad and Warehouse) Toronto Pressed Steel Co. Toronto.	Wire, Copper E. F. Phillips Electrical Works, Ltd. Montreal. The Wire and Cable Co. Montreal.
Steel Rolling Doors W. H. C. Mussen & Co. Montreal.	Turbine Waterwheels W. Kennedy & Sons (Ltd.) Owen Sound, Ont.	Wire, Electric Canadian General Electric Co. Toronto. E. F. Phillips Electrical Works, Ltd. Montreal. The Wire and Cable Co. Montreal.
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Structural Metal Work Canada Foundry Co. Toronto. Dominion Bridge Co. Montreal. Locomotive and Machine Co. of Montreal. Montreal. Jas. W. Pyke & Co. Montreal.	Turntables Canada Foundry Co. Toronto. Dominion Bridge Co. Montreal.	Wire Lockers (Employees) The G. B. Meadows Wire, etc., Co. Toronto.
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Switch Ropes The B. Greening Co. Hamilton, Ont.	Underwriters Dale & Co. Montreal.	Wrecking Cranes W. H. C. Mussen & Co. Toronto.
Switch Targets Acton Burrows Co. Toronto.	Valves, Iron and Brass Canada Foundry Co. Toronto.	Wrought Steel Piping Babcock & Wilcox (Ltd.) Montreal. Canada Foundry Co. Toronto.
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Ales

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Angle Bars

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Montreal Steel Works. Montreal.

Axles

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Jas. W. Pyke & Co. Montreal.
Rhodes, Curry & Co. Amherst, N.S.

Babbitt

Williams, & Wilson. Montreal.

Bearings, Side

Chicago Railway Equipment Co., Chicago, Ill.

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Billing Machines

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Blankets and Bedding

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Block Signals

General Railway Signal Co., Buffalo, N.Y.

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Polson Iron Works. Toronto.
Robb Engineering Co. Amherst, N.S.
Williams & Wilson. Montreal.

Boilers, Internally Fired

Robb Engineering Co. Amherst, N.S.

Boilers, Portable

Babcock & Wilcox (Ltd.) Montreal.
Canada Foundry Co. Toronto.
H. W. Petrie Toronto.
Robb Engineering Co. Amherst, N.S.

Boilers, Stationary and Marine

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Canada Foundry Co. Toronto.
H. W. Petrie Toronto.
Robb Engineering Co. Amherst, N.S.

Boilers, Steam

Erie Heating Co. Chicago, Ill.
H. W. Petrie Toronto.

Boilers, Water Tube

Erie Heating Co. Chicago, Ill.

Boiler Tubes

Jas. W. Pyke & Co. Montreal.

Bolsters

Simplex Railway Appliance Co. Montreal.

Bolts, Bridge

Canada Foundry Co. Toronto.
Montreal Rolling Mills Co. Montreal.
Toronto Bolt and Forging Co. Toronto.

Bolts, Carriage and Machine

Toronto Bolt and Forging Co. Toronto.

Bolts, Track

Canada Foundry Co. Toronto.
Montreal Rolling Mills Co. Montreal.
Toronto Bolt and Forging Co. Toronto.

Book Typewriters

United Typewriter Co. Toronto.

Box Car Loaders

W. H. C. Mussen & Co. Montreal.

Brake Beams

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Simplex Railway Appliance Co. Montreal.

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American Brake Shoe & Fdry Co., Mahwah, N.J.

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Car Movers

W. H. C. Mussen & Co. Montreal.

(Continued on page 333.)

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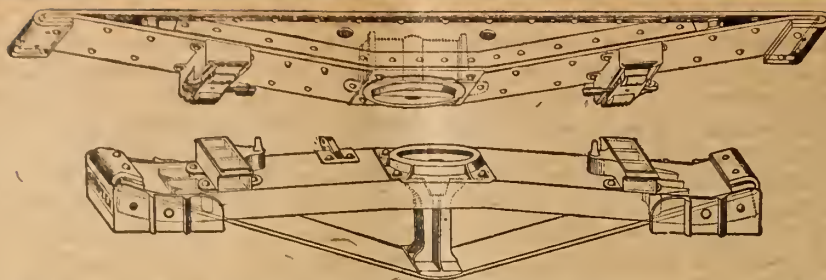
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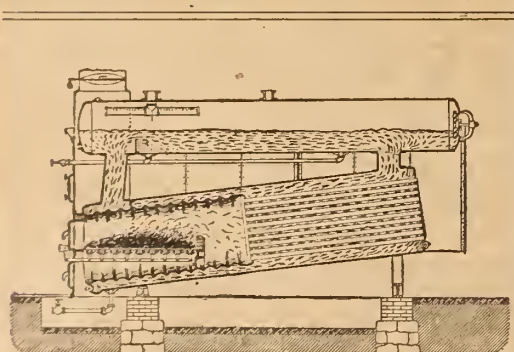
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TORONTO, CANADA, AUGUST, 1905.

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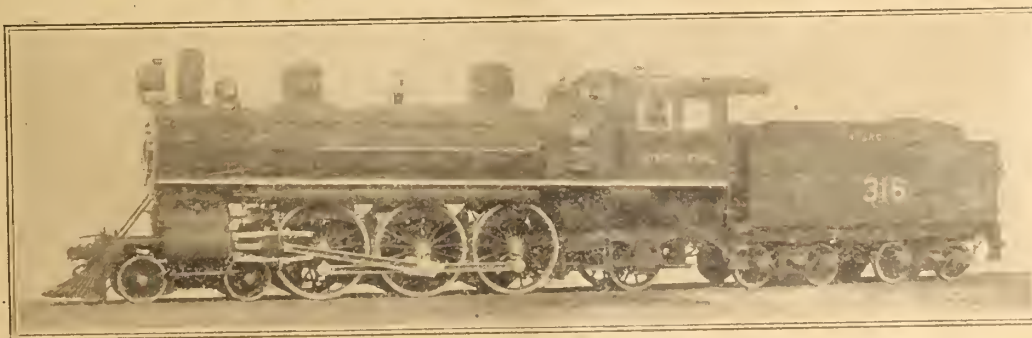
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MEDALS
AWARDED.

Westinghouse

Direct Current Railway Motors

Some Late Designs



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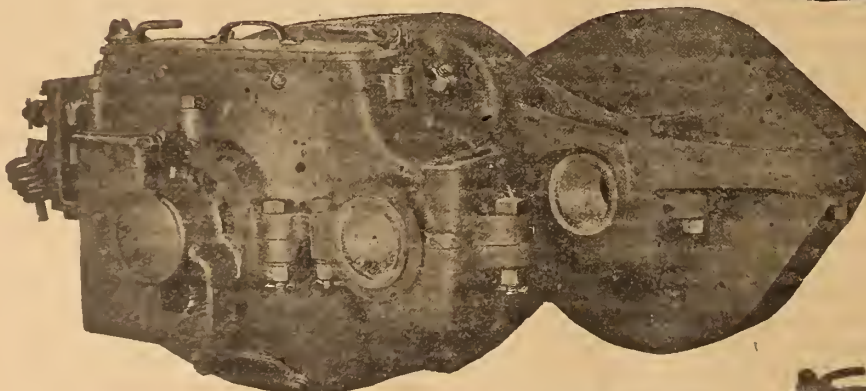
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TORONTO, CANADA, AUG., 1905.

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Transcontinental Railway Report.

In our June issue we gave a brief advance summary of the interim report of the Transcontinental Ry. Commissioners, more extended reference to which will be of interest. The report was signed by F. B. Wade, Chairman, who died in May, shortly after the report had been completed, and whose place on the Commission has not yet been filled, C. A. Young having been appointed acting Chairman until such time as the new member is appointed.

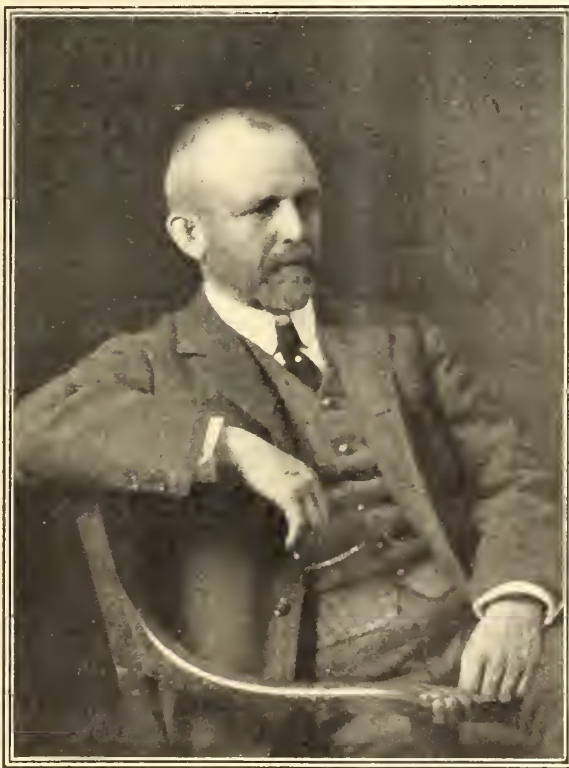
The report deals with the work of the Commissioners from the date of organization in Sept., 1904, to Feb. 28, 1905. Permanent offices for the Commission have been obtained in the Corry Building, Ottawa, at a rental of \$8,500 a year. The Commissioners meet every week day when a quorum of two members is in town; the chief engineer attends all board meetings and takes part in the deliberations.

The first matter considered was as to what work should be undertaken during the then approaching autumn and winter. It was decided that as the G.T. Pacific Ry. Co. had had in hand the surveys from Winnipeg east to somewhere north of North Bay, and as it might prove desirable to purchase and take over these surveys, it would be well to first direct attention to placing in the field parties along the line from Moncton to Lake Abitibi. With regard to the route across the province of New Brunswick, as there was a great diversity of opinion as to whether a line across the centre of the province was obtainable at all, it was decided to run preliminary surveys from Moncton to Grand Falls by alternative routes, the one via Chipman, Fredericton and the valley of the St. John River to Grand Falls, and the other via or near Chipman direct across country to Grand Falls. As there was also a diversity of opinion as to whether the line further west should be located by the St. Maurice River and north of Lake Abitibi, or by the Mattawin River and south of Lake Abitibi, it was decided to explore both of these lines. It was also decided to ascertain if a location could be secured from Lake Clear down the River du Postes to St. Michael and on to Joliette. The survey parties for the several districts between the points named, having been organized and placed in the field, the work was prosecuted throughout the fall and winter. Subsequently additional parties were placed in the field between Lake Abitibi and Winnipeg, Man.

"The engineering work," the report states, "has been carried on under the supervision of the Chief Engineer, H. D. Lumsden, whose services and advice we have had to avail ourselves of in many other matters than

those strictly pertaining to engineering work, and which we have always found most valuable."

Early consideration was given to the desirability of purchasing the surveys, plans, etc., made by the G.T. Pacific Ry. Co., on the main line east of Winnipeg. It was deemed desirable that these should be secured as it would at once give the Commission a mass of valuable information, and negotiations were opened with the G.T.P. Ry. Co., Nov. 26, 1904. The terms upon which the Commissioners proposed to take over the



ARCHER BAKER,
European Manager Canadian Pacific Railway.

surveys were:—"(1) We propose to purchase the surveys of the G.T.P. east of Winnipeg, other than those which have reference to its proposed branch lines to Thunder Bay and North Bay; also its depots, cachés, tents, outfits, provisions, instruments, etc. (2) We will pay for these their actual cost, allowing interest at the rate of 4% from the time the bills are actually paid by the company. (3) The cost to be determined by accountants appointed by us, who will examine the books and vouchers under the supervision of our engineer. (4) All maps, plans, field books and other data in connection with the said surveys to be handed over to us. (5) The

cost of the said surveys to be computed to Nov. 30, and all parties and materials in the field and elsewhere to be taken over by us on Dec. 1. (6) The accounting to commence forthwith and to be pushed through as rapidly as possible. (7) If necessary, a portion of the payment to be deferred until after a further appropriation by parliament to the Commission, such deferred payment to bear interest at the rate of 4%." The offer was finally accepted Jan. 13, 1905, and special auditors were appointed to go over the books and accounts of expenditure made in connection with the surveys. The audit was made under the supervision of the Commissioners' Assistant Engineer, M. J. Butler, who reported during its progress, "that he considered that 4-5 of section 3 of the surveys was not within the zone of the explorations which would have been made by the Commission upon the main line, and it was agreed as a result that the Commission would take over the cachés, equipment and outfits in connection with said section 3 and pay for 1-5 of the surveys made upon it, which would cover the portion which was reasonably within the zone of our explorations. The Commissioners agreed that if their chief engineer, after additional explorations, was of the opinion that any greater portion of section 3 was within the zone which would have been explored by the Commission, the difference would be added to the amount that we would pay. The amount arrived at as the cost of these surveys, including the supplies on hand, and 1-5 of section 3, is \$289,863.67, including interest up to Nov. 30, 1904. The total cost to the company of the surveys upon the main line east of Winnipeg, including the whole of section 3, was \$318,308.24, including interest from the date of payment to Nov. 30, 1904." The reason the Commission agreed to take over the cachés and supplies on the remaining 4-5ths of section 3, was because it was desirable to have the supplies in that part of the country, where they could be easily dropped down the streams, north, to the line projected by the Commission. It was also agreed

to pay for the cost of the parties working in the field upon that portion of the main line taken over by the Commission from and after Dec. 1, 1904, up to the date at which they were taken over. The cost of these parties has not been accurately ascertained as yet.

Previous to the purchase of these surveys the Commissioners had sent out parties to survey a route between Winnipeg and Lake Abitibi, the headquarters of the district engineers in charge being Winnipeg (afterwards changed to Rat Portage, Ont.), Nipigon and North Bay, Ont. The Commissioners pro-

(Continued on page 341.)

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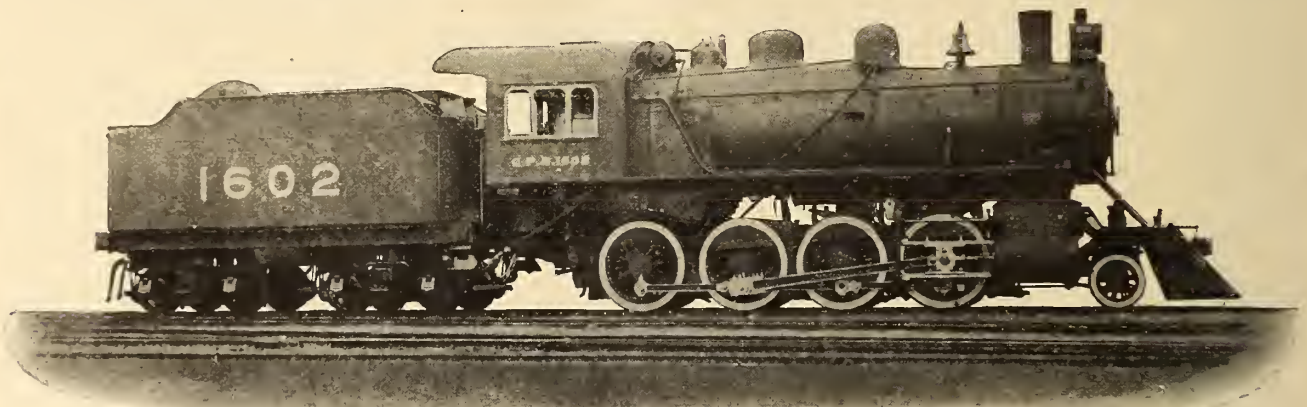
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Transcontinental Railway Report.*(Continued from page 337.)*

posed to keep the route as far as possible in a line with Lake Abitibi, and not to deflect it south to North Bay, as was the object of the G.T.P.R. Co. The Commission had, at the time of making the report, only two of the survey parties sent out by the G.T.P.R. Co.

The Commission has a well-organized transportation staff, with headquarters at Ottawa, equipped and in a position to deliver all needed supplies required by the parties, all along the line, and is in a position to move its supplies into the interior with comparative ease and certainty, although the cost of transportation is, in some sections, heavy. The transportation through New Brunswick and the eastern end of the province of Quebec, extending as far as the western boundary of district B has been accomplished mostly by teams, and very little trouble has been experienced in these districts, except that arising from the unusually heavy snowfall of the past winter. A great deal of difficulty was met with in getting supplies up to the north waters of the Ottawa and Gatineau rivers. It was late before the supplies were started, after having secured the necessary canoes, boats and men. The men were overtaken by ice in some cases, before they had reached the distributing caches aimed at. The winter transportation up the Gatineau has been conducted by teams as far as the Forks to a large cache there, from which point it has been distributed to the different parties by packers and dog teams. Dog teams have also been employed to advantage up through North Temiskaming to the east of Lake Abitibi. In order to get supplies up to the north and west of Lake Abitibi 46 miles of road had to be cut out. Although the winter was one of unusual severity, there were no disasters of any moment, with the exception of the death of W. Leamy, transport officer up the Temiskaming route. He went on ahead of his party, looking for the best way for moving his supplies on, and it is supposed that he broke through the ice and was drowned. The distance from the end of the railway track at Maniwaki to where the supplies are taken by teams to the Forks of the Gatineau, is about 115 miles. From there to the south line is about 20 miles, and from the south line to the north line is about 50 miles. As there is no road or trail at all from the forks northward, the difficulty of transporting supplies by dog teams and packers can be appreciated. One of the greatest obstacles encountered in the transporting of supplies into the interior is the slush upon the lakes. After the lakes freeze up the weight of the first heavy fall of snow sinks the ice; consequently the water overflows it and saturates the snow, which is turned into slush, and will not freeze except when broken up. This slush will usually not bear the weight of a man, and is sometimes several feet in depth. Each successive fall of snow has the same result, and the lakes are sometimes rendered almost impassable. The purchase of supplies, etc., were made by the purchasing department, under the charge of A. L. Ogilvie.

So far as the Commissioners were aware, all its employees are British subjects and, with but few exceptions, Canadian born. "We feel confident," the report continues, "that we will have a full home supply of both skilled and common labor for the purposes of the work. During the rather hasty marshalling of our forces, we took on a few engineers, instrument men and laborers, who proved to be undesirable. This was to be expected. These have been about all weeded out, and we are confident that we have in our employ to-day, as fine a body of engineers, assistants and men as can be found upon any public work. We have laid down the rule—

and will adhere to it—that promotion must be made on merit alone, and in the matter of merit the judgment of the engineers will prevail in their department."

As to the work accomplished it is reported that the exploratory surveys in districts A and B had been completed, and the parties withdrawn. The Commission is now possessed of sufficient information to enable a decision to be arrived at as to whether the line via Fredericton and St. John River Valley or the one across the centre of New Brunswick should be adopted. It will be some little time before sufficient information is obtained to enable a decision to be arrived at as to whether the line north or south of Lake Abitibi will be preferable, although about all the information desirable for that purpose in the eastern portion of district B has been secured. It was proposed to commence location surveys in districts A and B as soon as the local conditions would permit, probably the first week in May. It was expected that location surveys in districts A, B and F would be completed so that tenders might be called for in the early autumn.

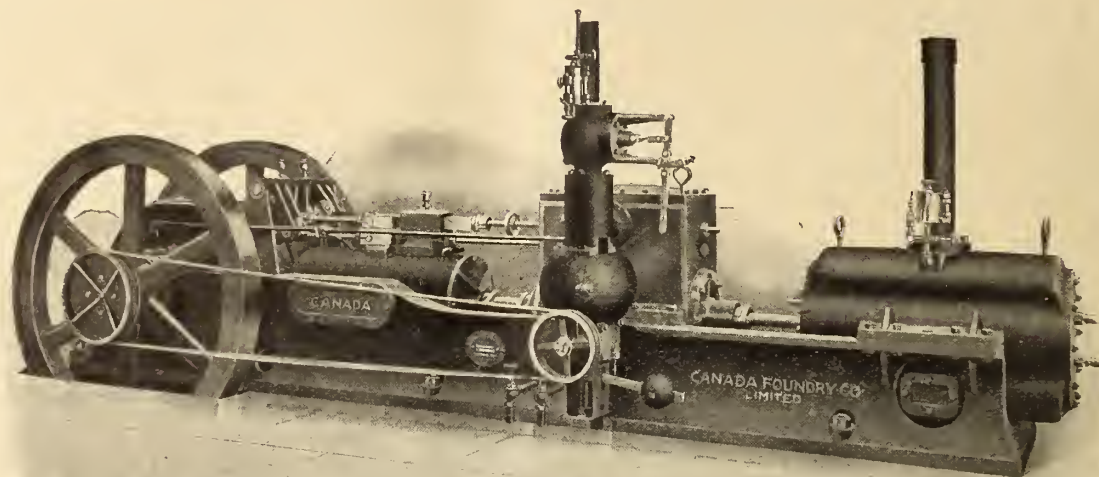
It was deemed advisable before tenders were invited that there should be prepared general specifications covering all works, forms and conditions under which tenders will be asked for, forms of contract that will be insisted upon. After some correspondence with the G.T.P.R., it was decided that there should be uniform specifications on the eastern and western divisions of the line. These specifications were prepared and have been approved by the company. They have been submitted to the Minister of Railways, who has also approved of them, although his sanction is not necessary. A copy of the specifications is appended to the report.

The Commissioners have, as far as possible, familiarized themselves with the country. They have visited Quebec, Edmundston, Grand Falls, Woodstock, Fredericton, Boiestown, St. John, Norton, Chipman, Minto, Moncton and Halifax, and also spent several days in Winnipeg, studying with the Chief Engineer the conditions there, and at the same time, visited Selkirk and Port Arthur. It will be necessary in the near future to decide upon the questions involved in connection with the terminals at Quebec and Winnipeg. The report continues:—

"The Commission feels that it should make special reference to the work which has been accomplished in connection with the surveys from Moncton to Chaudiere. It has been asserted and believed for many years that a line could not be secured across the centre of New Brunswick, with grades equal to the Intercolonial Ry., or any grades which at the time of the building of the I.C.R. would have been considered reasonable; also that it was impossible to secure such a line around the corner of the State of Maine, except by such an enormous expenditure as would make it prohibitive. It was also asserted that it would be necessary to use 1% or heavier grades the remainder of the way to Chaudiere. On the other hand, it was claimed that these difficulties did not exist; that the surveys which had apparently established them had not followed the right direction, or had not exhausted the possibilities of the territory traversed. In taking up this part of the work, the Commissioners decided to have an exhaustive and minute examination made of this country, and to acquire and present such information as would definitely settle and determine these conflicting contentions. We deemed it best to ascertain beyond doubt which was right and which was wrong in order that the public mind would be set at rest. To this end we directed our engineers to make the most exhaustive and careful explorations and surveys, so that having before them all that had been written or said they would be able to make complete and decisive reports. The first of the surveying

parties were placed in the field on Sept. 27, 1904, and continued at work through the whole winter (the most rigorous and with the heaviest snowfall in that part of the country within the memory of living man), and as a result we are in a position to state that we have secured a line from Moncton to Chaudiere with a maximum grade of 0.4 opposed to eastbound freight and 0.6 opposed to westbound freight, and with a maximum curvature of 6° and these only used in a few places. This line runs all the way through a valuable country, part of which is settled and the remainder is most desirable for settlement, and the opening of which will be of great advantage to the country. The probable length of this line, when finally concluded, if the cross country route in New Brunswick is adopted, will be shorter than the I.C.R. between the same points, but how much we cannot say until our location surveys have been completed. If, however, the grades in existence upon the I.C.R. were employed, a saving of at least 90 miles over the I.C.R. by the cross-country route would be effected, and nearly as much by the river route. The value of the road on the lines we have secured, and with the grades and curvatures we have obtained may best be understood by a comparison with the I.C.R. with its grades and curves, and in this connection we refer to the calculations contained in the report of the Assistant Chief Engineer, M. J. Butler, from which I will draw a few conclusions. The same motive power that will haul 660 tons on the I.C.R. will by the line secured haul 1,260 tons going east and 990 tons going west. If we take the workings of the two roads with 10 daily I.C.R. freight trains each way, we find that in 313 working days upon the I.C.R. there would be 4,131,600 pay tons of freight carried, and to haul this number of trains there would be 3,089,310 train miles per year. The cost of this, as per the report of the I.C.R. for 1903, would equal \$3,016,711. The Transcontinental Ry. would only have to run (via the centre route) 1,825,415 train miles per year to move the same quantity of freight, and which, at the same cost per train mile as the Intercolonial, would amount to \$1,782,518.72. It will thus be seen that the annual operating cost of the I.C.R. for the said quantity of freight is \$3,016,711.21, while that of the Transcontinental will only be \$1,782,518.72, a saving in favor of the Transcontinental of \$1,237,192.47, which capitalized at 4% per annum equals \$30,854,812.25; that is, we claim that the Transcontinental, with its lower grades and curves, the road being equally well constructed with the I.C.R., will be over \$30,000,000 more valuable. With increased business the difference would be much greater. If, however, we give the Transcontinental 10 fully loaded trains per day (of its own) instead of confining it to what would be equal in tons to 10 fully loaded trains upon the I.C.R., the difference would be much greater still and the net annual saving would amount to \$2,157,541.52, which capitalized at 4% per annum would give \$53,938,613 as the increased value of the Transcontinental low grade line over the I.C.R. If the grades are increased to the I.C.R. standard the distance would be reduced on the Transcontinental to 103.7 miles. Taking the same 10 trains per day comparison, there would be an annual saving in favor of the latter road of \$548,937.52, which being capitalized at 4% per annum, equals \$13,723,438, which represents the increased value of the Transcontinental Ry. over the I.C.R. for the handling of that amount of traffic. As the traffic increases, the difference increases. These calculations have all been made upon the centre line through New Brunswick. They can easily be applied to the other route. There are sundry other comparisons in the report of Mr. Butler which should be re-

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ferred to, in order to estimate the additional value of the line we are constructing. It has been suggested that the I.C.R. could be utilized for the eastern section of this line, but the judgment of the Commission is, from the information obtainable, that if it were attempted to lower the grades of the I.C.R. to the standard that we have secured over the Transcontinental, the distance from Chaudiere to Moncton would be increased by considerably over 100 miles, and this large section of valuable country would not be opened up. There are two points on the line between Chaudiere and Moncton where it may be found desirable to put in 'pusher' grades of 1%. If this is decided upon, a shortening of distance of 25 miles can be secured. It is a mere matter of calculation as to whether it would be more economical or not to put in these grades. As the heavy through traffic east beyond Quebec will only last about five months of the year, there is much to be said in favor of putting in these two 1% grades. On the other hand is placed the cost of construction, maintenance and operation all the year round, of 25 miles of line, as against a 'pusher' service at two points for about five months of the year. We cannot estimate accurately the cost of the proposed line from Moncton to Chaudiere, but we think we are safe in stating that it will not exceed an average of \$33,000 per mile, and we hope to very considerably reduce this estimate."

The expenditure to the end of March was \$440,462.03, leaving \$59,537.97 on hand of the vote of the session of 1904. There were on the same date liabilities of \$175,761.66. It was estimated that a further vote of \$290,500 would enable the Commissioners to carry on operations to the end of the fiscal year, and for 1905-06, it was estimated that \$1,328,500 would meet all expenditures, and in the event of tenders being asked for in the fall, the Commissioners estimated that it would be necessary to have a further sum of \$3,000,000 to meet payments to contractors. The supplementary estimates provided for \$1,000,000 for construction work, \$1,000,000 for terminals and right of way, and \$352,379.52 to pay the G.T.R. for the surveys, etc., taken over by the Commission.

The report of the Chief Engineer, H. D. Lumsden, set out that M. J. Butler was appointed Assistant Chief Engineer. The entire distance to be surveyed was divided into districts approximating 315 miles each, divided as follows: DISTRICT A, from Moncton to the boundary between New Brunswick and Quebec, under G. C. Dunn, district engineer, with headquarters at Fredericton, N.B. DISTRICT B, from the last mentioned boundary to the vicinity of longitude 74° west, under A. E. Doucet, with headquarters at Quebec, P.Q., and S. R. Poulin, his assistant in the field. The section in the vicinity of Quebec Bridge from St. Jean Chrysostome to the county line between Quebec and Portneuf, about 17 miles, was placed under E. A. Hoare, with headquarters at Quebec. DISTRICT C, from the vicinity of longitude 74° to near the boundary between Quebec and Ontario (east of Lake Abitibi) under A. N. Molesworth, district engineer, with headquarters at Ottawa, Ont., and A. T. Fraser and G. H. Garden, assistants in the field. DISTRICT D, from near the last-mentioned provincial boundary to near longitude 84° west, under J. Aylen, acting assistant district engineer, with headquarters at New Liskeard, Ont. DISTRICT E, from near longitude 84° to near longitude 89° 30', under C. E. Perry, district engineer, with headquarters at Nepigon, Ont., and C. F. Hannington, assistant in the field. DISTRICT F, from near longitude 89° 30' to Winnipeg, under A. E. Hodgins, with headquarters at Winnipeg. Instructions were issued to the engineers in charge respecting their duties. They were in-

structed to adhere to grades not exceeding 0.4% adverse to eastbound and 0.5% adverse to westbound traffic, though in regard to the last mentioned this has been changed to 0.6% in one or two exceptional cases. The maximum curvature was limited to 4°. The work done by the different parties is summarized by the Chief Engineer as follows:—

"DISTRICT A.—On Sept. 27, G. C. Dunn, who had been appointed acting district engineer for that district, organized and started out six survey parties, and during the following month six more parties; two of these, however, were disbanded before the end of Dec. Commencing at Moncton and extending through to Quebec boundary, a large area of country has been explored, and preliminary surveys have been made to Chipman on the Salmon River, and thence by what is known as the back route up the valley of the Gaspereau River, and passing south of Boiestown to the head waters of the Texas and Miramichi rivers, thence to near Plaster Rock, then to Grand Falls and Edmundston, and connecting with the surveys made in district B, at a point about 20 miles beyond the province line. Another route was surveyed branching off the foregoing near Chipman, striking the valley of the St. John River and crossing it at Fredericton, thence following the west side of the river to Woodstock, and Andover, and re-crossing the river at the last-mentioned point, thence to Grand Falls, where it joined the back route survey. On both these routes many pieces of alternative lines were run or explored. The total distance by the back line from Moncton to the Quebec boundary is, say, 294 miles, which distance will probably be shortened on location. By the river route the distance is 311 miles, but will probably be lengthened on location. Total mileage covered in this district was, of barometrical explorations, 2,900 miles; preliminary lines, 1,320. Grades of 0.4% adverse to eastbound and 0.6% adverse to westbound traffic, with maximum curvature of 4° were obtained, except the curvature which may require the use of several 6° curves.

"DISTRICT B.—The first of 11 survey parties in this district was sent out on Oct. 10, 1904, from which date to Mar. 1, 1905, a large area of country was explored and examined, some 677 miles of exploratory and 540 miles of preliminary surveys having been run. The results of these surveys prove that for the entire distance (423 miles) from the boundary between the province of New Brunswick and Quebec, near Lake Baker to the westerly limit of the district near longitude 74° west, grades not exceeding 21.12 ft. per mile opposed to eastbound and 31.6 ft. per mile opposed to westbound traffic have been obtained, and the last mentioned grade has only to be made use of in a very few cases. The curvature was limited to 4°, but it has been found necessary to use 6° curves at two or three exceptional points. The portion included between St. Jean Chrysostome on the south, and the boundary between the counties of Quebec and Portneuf on the north side of the St. Lawrence River was put in charge of E. A. Hoare, and his section also includes the approaches and terminals for Quebec city. The main line distances were as follows:—Line 1 with viaduct over Cap Rouge River, I.C.R. Railway to B. & R. Company yard, 5.33 miles; B. & R. Co. bridge and line, 2.40 miles; Bridge to county line, 7.60 miles; total, 15.33 miles. Grade 0.4% each way. Line 2, avoiding viaduct—I.C.R. Railway to B. & R. Company yard, 5.33 miles; B. & R. Co. bridge and line, 2.40 miles; Bridge to county line, 13.14 miles; total, 20.87 miles. Grade 0.1 eastbound—0.6 westbound. City approaches, bridge to Champlain market, 6.40 miles. Grades adverse to westbound traffic about 53 ft. to

the mile. Total distance county line to Champlain market via line 1, 1.14 miles. Branching off line 2, avoiding viaduct to Louise basin 6.40 miles. Maximum grade 0.4. Total distance county line to Louise basin via line 2, 12.75 miles. Maximum grade westbound 0.6%. Total length of location and preliminary survey lines run in this section, 85 miles.

"DISTRICT C.—The country through which the line in this district will pass is entirely uninhabited save by several Hudson's Bay or fur traders' posts and a few Indians, and unsurveyed with the exception of a few explorations, geological and others, along the principal rivers, and these generally at right angles to the direction of the proposed line. No reliable information is obtainable as to the country between the streams. As far as reports heretofore received by us would indicate, this country is dotted with numerous lakes, the land being more or less timbered with spruce, cypress, birch, poplar and small tamarac and cedar. Eight parties were organized and sent out in this district in Oct., four going out by way of Maniwaki, Que., and four others by way of Kippawa, Que. Owing to the lateness of the season, these parties took considerable time in reaching their destination, caused by the low state of the water in the rivers, the early forming of ice and difficulty in transporting considerable quantities of provisions beyond the regular transportation routes. They have now been at work for some time, but in many cases have had to abandon miles of line owing to their meeting with numerous lakes and stretches of country where it was impracticable to obtain the grades required. From the latest reports they are now making fair progress, but it will be some time before it can be decided whether the north or south line will prove the most advantageous. Cachés with provisions for all the necessary parties for the next 10 months have been provided at the forks of the Gatineau, and at the north end of Grand Lake Victoria. As soon as the ice moves out of the rivers and lakes supplies will be distributed east, west and north from these cachés for the use of the various parties. The reports so far received would indicate that the north line will probably be found the most advantageous, both as to cost of construction and nature of the country passed through in respect to its suitability for settlement.

"DISTRICT D.—The nature of the country and of the timber in this district is in many respects similar to that of District C, and there are no settlements in the vicinity of the proposed line other than Hudson's Bay and fur-trading posts on Lake Abitibi, close to which lake the lines will run. Two parties are now at work in this district, one on the line passing to the south and one on the line passing to the north of Lake Abitibi. From reports the party working on the south line will find a rough, broken country for at least 30 miles westward of their starting point, which is about a mile and a half from the upper end of Agotawekami Lake. So far, from this point eastward that party has had no trouble. Three more parties are just being sent out, one going on the north line from near the north-west bay of Lake Abitibi and running westward; a second party going down the Abitibi River to the vicinity of this proposed northern line and running easterly for say six miles and then westerly; the third party going in to near the north-east corner of the township of Beatty and running easterly to Ghost River, and then returning to their starting point and running westerly beyond Frederichouse River. These parties are all expected to be at work before the end of March.

"DISTRICT E.—The surveys in this district have all heretofore been conducted under J. R. Stephens, the engineer for the



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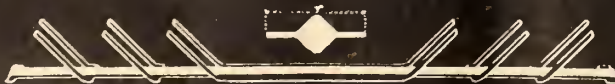
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G.T.P.R., and a line run across the entire distance; but from about 110 miles easterly from the north end of Nepigon Lake this line inclined too much to the south, especially after crossing the Missanabi River, near Albany rapids, at which point it turned south-easterly and headed for North Bay. At the last mentioned point near Albany rapids the line run would be about 18 or 20 miles south of a direct line passing to the north of Lake Abitibi, as now proposed. I am now arranging for parties who have been working for the G.T.P.R. during the winter in that vicinity to be put on to explore this direct line through to connect with parties which have just been sent out in District D, for a similar purpose. The surveys so far made in this district go to show that the country is rough and broken in places, with one or two expensive river crossings, especially that of the Pequtchewan river, but as the new proposed line is some distance north of the line as run, and I have been informed that a much better crossing can be found to the north of said line, it is probable that this crossing can be much reduced in cost. The line run in this district passes through what may be found to be fair agricultural lands of considerable extent, with large area of brule, but where not burnt over the timber is generally small spruce, cedar and tamarac, the latter generally dead, with occasional blocks of heavier timber, suitable for ties, etc.

"DISTRICT F.—The surveys in this district up to Jan. last were conducted by the G.T.P.R. engineers, who in Nov. commenced locating a line which showed heavy work in places. From the information furnished by them it was my opinion that there was not sufficient exploration through the country to warrant the continuance of location until such time as I was sure the line they had run was the best the country afforded. Accordingly in January last I sent out one preliminary and five exploratory survey parties under A. E. Hodgins, district engineer, to explore and examine other sections of the country than those shown to have been explored by the G.T.P.R. parties."

At the request of the Chief Engineer, M. J. Butler, Assistant Chief Engineer, who had recently been over considerable portions of districts A and B, made a report on the comparative distances by the Intercolonial Ry., from St. Jean Chrysostome to Moncton and by the Transcontinental preliminary line, and what difference would be made in this distance supposing grades of 1% were used in each direction; and comparing the operating values of the several lines on the basis of 10 freight trains per day each way; and showing what the difference in the capital account would be. Mr. Butler's report follows:—"The distance from Moncton to St. Chrysostome, by way of the I.C.R. is 493.5 miles. The distance from Moncton to St. Chrysostome via the preliminary survey lines as run for the Transcontinental Ry., is 504 miles. The estimated shortening of the preliminary line that will be secured by the final location is 18 miles, making the distance from Moncton to St. Chrysostome by way of the Transcontinental line, 486 miles. In arriving at this estimated shortening, I conferred with the district engineers of districts A, and B, and it is from their estimates that the above distances are fixed. My personal knowledge of the field work and plans, based upon a recent examination of the line through New Brunswick and a portion of Quebec, would lead me to expect a still greater shortening of these lines in the final location. Hence, I have taken the distance at 486 miles for all comparisons as the length of the Transcontinental Ry. from Moncton to St. Chrysostome. The estimated shortening from the preliminary survey lines, using 1% grades both ways, is 100.3 miles, making the distance from Mone-

ton to St. Chrysostome, by such 1% both ways grade, 403.7 miles. For the purpose of the calculation, I have taken the I.C.R. locomotive no. 310, a simple consolidation, recently built by the Canadian Locomotive Company, and which, I understand, is now in use on the line, the principal dimensions of which are as follows: Diameter of cylinder, 21 ins.; length of stroke, 28 ins.; height of driving wheels, 56 ins.; weight of driving wheels, 150,000 lbs.; weight of engine in working order, 165,000 lbs.; weight of tender, 120,000 lbs.; total weight of engine and tender, 285,000 lbs.; or 142.5 tons. The weight of the van or caboose is 14.5 tons. I assume that 30-ton capacity cars, which weigh when loaded, 46.15 tons, will constitute the train. The several cars which the above locomotive can haul at a speed of 15 miles per hour on the several grades below are as follows:—I.C.R. 1% grades, 22 cars, equal to 660 tons net pay load. Transcontinental Ry. eastbound 4-10ths of 1% grade, 42 cars, giving 1,260 tons net pay load. Transcontinental Ry. westbound, 6-10ths of 1% grade, 33 cars, giving 990 tons net pay load. The I.C.R., 10 daily freight trains each way, will haul in a year of 313 working days (length of line 493.5 miles), net pay tons 660x2, trains 2x10x313 days=4,131,600 pay tons; and to haul this number of trains will make 493.5x2 miles, 2x10 trains, 313 days, 3,089,310 train miles per year. The cost per train mile on the I.C.R. Ry. for 1903, as given in the report of the Department of Railways is 97.65c., which cost will be used for all comparisons. Hence 3,089,310 train miles x 97.65c.= \$3,016,711.21, which gives the annual cost of operating the ten daily trains on the I.C.R. The Transcontinental Ry. low grade line will handle the same tonnage, with 7 trains eastbound and 5 westbound, although they will not be quite loaded to the full limit, the ratio of eastbound to westbound traffic is taken at about 6 to 4. (Length of line 486 miles). Hence we get 486 miles x 12 trains x 313 days=1,825,415 train miles per year, which moneyed out at the same price per train mile of 97.65c. equals \$1,782,518.72, which gives the annual cost of operating the twelve trains on the Transcontinental Ry. The annual operating cost of the I.C.R. being \$3,016,711.21. The annual operating cost of the Transcontinental Ry. being \$1,782,518.72. Leaves a net annual savings in favor of the Transcontinental Ry. of \$1,234,192.49, which sum capitalized at 4% per annum equals \$30,854,812.25. And this amount is the increased value of the Transcontinental low grade line over and above the existing I.C.R., on the basis of 10 daily trains each way over the I.C.R. With increased business the difference will be much greater. For instance, on the basis of 10 fully loaded trains each way per day on the Transcontinental, we get 486 length line x 10 x 2 trains x 313 days=3,042,360 train miles, which will cost per year at 97.65c. \$2,970,861.54, and will transport 7,042,500 net pay tons. To do this business on the I.C.R. will require 34 daily trains, and we get 493.5 miles x 34 trains x 313 days=5,251,857 train miles, which will cost per year at 97.65c. \$5,128,409.06. The annual net savings in favor of the Transcontinental Ry. on this basis being \$2,157,541.52, which sum capitalized at 4% per annum, gives \$53,938,613, and this amount is the increased value of the Transcontinental low grade line over and above the existing I.C.R., on the basis of ten daily trains each way on the Transcontinental Ry. The next comparison required is, between the proposed 1% grade on the Transcontinental Ry., and other lines, the train loads to be the same as the I.C.R. as the grades are the same, the cost being affected by the shorter mileage. Length of line from Moncton to

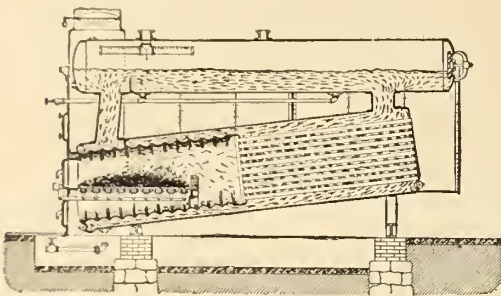
St. Chrysostome, 403.7 miles; ten daily trains each way per day for 313 working days; 403.7 miles x 10 x 2 trains x 313 days =2,527,162 train miles per year. Tonnage hauled, same as on I.C.R., viz., 4,131,600 pay tons; 2,527,162 train miles at 97.65c. \$2,467,773.69. As the I.C.R. cost for the same service is \$3,016,711.21, the net annual savings by the proposed 1% Transcontinental would be \$548,937.52, which sum, capitalized at 4%=\$31,723,438; and this amount is the increased value of the suggested 1% Transcontinental line over the I.C.R., on the basis of ten daily trains over each road each way. The comparison between the two proposed grades on the Transcontinental Railway works out as follows:—On the basis of ten daily trains each way per day, on the 1% grade line—1% per grade line train mileage cost \$2,467,773.69, Transcontinental low grade line train mileage cost, doing same business, \$1,782,518.72; net annual savings in operation \$685,254.97, which capitalized at 4% per annum=\$17,131,374.75. And this amount is the increased value of the low grade line over the 1% line. In all the above calculations no account has been taken of reduced operating cost for passenger trains. It is obvious that substantial savings will result from the use of lighter engines to haul the same passenger train. Less fuel, oil, etc., will be required, less wear and tear to track and bridges through lighter engines, better time and more uniform rates of speed may be maintained. In conclusion, the cost per ton on the several lines, based upon the above figures, are as follows:—I.C.R., Moncton to St. Chrysostome per ton, 73 cents; Transcontinental Ry., 1% grade, Moncton to St. Chrysostome, per ton, 59 7-10 cents; Transcontinental Ry., 0.4% and 0.6% grade, Moncton to St. Chrysostome, per ton, 43 cents."

Robert Larmour, Principal of Larmour's School of Telegraphy, Stratford, Ont., and formerly Superintendent of the G.T.R. Southern Division, writes:—"I read THE RAILWAY AND SHIPPING WORLD with much interest, as it keeps me in touch with many old friends with whom I was connected when in active railway life."

The question of the provision of standard rules for train operation which was taken up by the Board of Railway Commissioners and discussed with representatives of the railway companies, was referred to a committee consisting of representatives of the C.P.R. and the G.T.R. That committee has now practically completed its report, which will be submitted at a meeting of the representatives of all the railways operating in Canada, to be held in the near future. After being approved by the railway representatives the rules will be submitted to the Railway Commissioners for official sanction.

The Toronto Construction Co. has been formed with G. S. Deeks as President and A. B. Cook as Manager, to carry on the business of general contractors, including the construction of railways, canals, bridges, docks and public works, and in connection therewith to take over the contract of G. S. Deeks & Co. for grading on the Toronto-Sudbury branch of the C.P.R. between Bolton and Coldwater, and Severn River and Parry Sound, Ont. The company's offices are at 70 Victoria St., Toronto. Formerly mathematical master at the Collegiate Institute, Clitham, Ont., G. S. Deeks was associated for some years with his cousin, G. M. Deeks, as a contractor, at St. Paul, Minn., the firm carrying out large railway contracts in Washington, British Columbia, etc. G. S. Deeks recently married a daughter of A. Campbell, of Toronto Junction, M.P. for West York.

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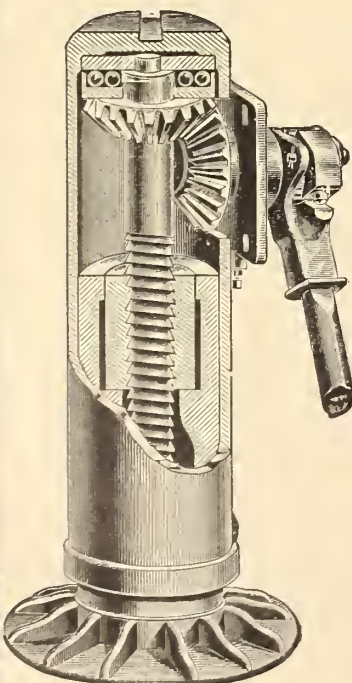
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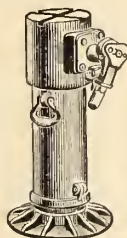
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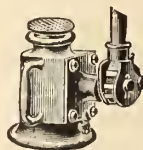
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Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:—

Authorizing the C.P.R. to expropriate additional lands adjoining its lines at Toronto Junction, Ont. (June 9).

Sanctioning changes of location for the C.P.R. from the constructed line of the Souris branch, between Oxbow and Alameda, Assa. (June 13).

Sanctioning change from the previously located line of the Vancouver, Westminster and Yukon Ry., between the south side of Second Narrows and lot 775 on the north side of English Bay, B.C. (June 13).

Approving detail plans of substructures for bridges on the Guelph and Goderich Ry. (June 13).

Sanctioning change from the previously located line of the James Bay Ry. in Foley township, near Parry Sound Junction, Ont. (June 13).

Sanctioning change from the previously located line of the branch from Wetaskiwin easterly, between mileage 25.34 and mileage 100, for the Calgary and Edmonton Ry. (June 17).

Sanctioning change from previously located line between mileage 48 and mileage 50, in Georgina township, York County, Ont., for the James Bay Ry. (June 17).

Approving revised location of the located line of the C.P.R. between Osborne and Bois-savain, Man. (June 17).

Approving detail plans of the substructure and draw span of a bridge over the Assiniboine River, Winnipeg, for the Canadian Northern Ry. (June 20).

Authorizing the Huronian Co. to erect wires across the track of the C.P.R. in Denison township, Ont., for conveying electric power, etc., in accordance with the terms of an agreement made between the companies. (June 27).

Sanctioning change from the previously located line of the James Bay Ry. in Mara and Thorah townships, Ont., between mileage 63.39 and mileage 69.02. (June 27).

Approving detail plans of superstructure of bridges over the St. Francis River at Sherbrooke and the Etchemin River at St. Anselme, Que., for the Quebec Central Ry. (June 27).

Approving an undercrossing of the Don road, at mileage 6 from Toronto, by the James Bay Ry. (June 27).

Sanctioning deviation from the previously located line of the James Bay Ry. between mileage 5.59 and mileage 6.35 from Toronto. (June 30).

Approving the location plans of the Klondike Mines Ry. from Klondike City to Grand Forks, Yukon, from mileage .89 to mileage 11.30. (June 30).

Approving plans for the reconstruction of the superstructures of bridges over the Rideau and Nation rivers for the Canadian Atlantic Ry. (July 4).

Sanctioning the location plans of the Toronto and Hamilton Ry. from Water St., Burlington, along Burlington Beach to mileage 35.33; and from mileage 35.24 along the beach to mileage 40.2 in Saltfleet. (July 4).

Authorizing the Laprairie Brick Co. to carry electric power lines over the G.T.R. tracks at Bresseau, Que., on terms mentioned. (July 4).

Authorizing the St. Catharines and Niagara Power and Fuel Co. to lay pipes for the conveyance of natural gas under the tracks of the G.T.R. in St. Catharines, Ont., on terms mentioned. (July 4).

Approving detail plans of the substructure of a bridge across Jeanette's Creek in Raleigh township, Ont., for the C.P.R. (July 5).

Approving location plans for a branch line from sec. 15, tp. 40, range 6, west of the 4th meridian, to sec. 13, tp. 42, range 10, west of the 4th meridian for the C.P.R. (July 8.)

The Board has reserved judgment in the complaint of J. H. Duthie, Toronto, against the G.T.R. respecting demurrage charged on a consignment of coal sent to Belleville, Ont., in Sept., 1904. It was claimed that the G.T.R. was to blame for the delay for which demurrage was charged, and in default of payment of which by the consignees the company sold the coal for \$250. The G.T.R. claims that the coal was promptly forwarded from Detroit to Belleville, where the consignees refused to take it on account of financial difficulties, and was subsequently sold. The coal was on foreign cars for which the G.T.R. had to pay demurrage. The applicants asked for the return of the amount charged for demurrage.

The Railway Commissioners' Policy.

A recent press report stated that the Railway Commissioners had taken steps with the object of compelling the various railway companies to live up to the provisions of the Railway Act, that are designed to ensure the safety of the public and the convenience of shippers, and that to this end two inspectors were making a complete investigation of all railway methods and equipment. It was further stated that the inspectors were consulting with shippers and residents along the railway routes to get at the bottom of all complaints. Upon enquiry we learn that there has been no recent addition to the staff of the commissioners, such as the news item suggested. The staff consists of a secretary, chief engineer and two assistants, two inspectors of accidents, and a chief traffic officer with assistants, all of which are provided for by the Railway Act. An enquiry was made by the Deseronto, Ont., Board of Trade as to the report and that body was informed that while the Board had directed its accident inspectors to look over the railways and ascertain how far they were observing statutory obligations in the interests of the safety and accommodation of the public, it had not adopted the policy of sending persons to enquire into complaints about rates and freight service. The Board was of opinion that the public interest would best be served by parties submitting to the Board in clear and specific terms, any objections they may have to make about these matters, when such enquiries as seemed proper would be instituted. While experience may show that it would be desirable to adopt the policy of appointing persons to make the enquiries suggested the Board does not think such a course is required at present.

The Robb Engineering Co., Anthurst, N.S., has received an order for a 75 horse power engine for the C.P.R. shops at Moose Jaw, Assa.

The boiler of a locomotive attached to a C.P.R. freight train blew up at Kincoth, Assa., recently, and an investigation showed that the use of muddy water in the boiler was the cause of the accident.

The Fairbanks-Morse Canadian Manufacturing Co. (Ltd.) has been incorporated under the Ontario Companies' Act, with a capital of \$250,000 to carry on a general manufacturing business. The offices of the company are in Toronto, and the provisional directors are: G. W. Sparks, Chicago, Ill., C. J. Brittain, and A. W. Holmsted, Toronto.

The Breckenridge and Lund Coal Co. has been incorporated with a capital of \$500,000 and offices at Lundbrook, Alta., to mine and sell coal. The incorporators include: J. Breckenridge, railway contractor, Calgary, Alta., and P. Lund, railway contractor, Wardner, B.C. The company's mines practically adjoin the Crow's Nest Pass Line of the C.P.R.

August Birthdays.

Many happy returns of the day to—

H. H. Adams, Superintendent Canadian Division, Michigan Central Rd., St. Thomas, Ont., born at Detroit, Mich., Aug. 13, 1876.

H. W. D. Armstrong, C.E., Lindsay, Ont., born at Ottawa Aug. 1, 1852.

W. E. Bishop, Manager Hamilton Steamboat Co., Hamilton, Ont., born at Brantford, Ont., Aug. 10, 1868.

G. J. Chadd, Purchasing Agent Central Ontario Ry., Trenton, Ont., born in London, Eng., Aug. 21, 1837.

J. F. Chapman, General Freight and Passenger Agent, Bay of Quinte Ry., Thousand Islands Ry., Oshawa Ry., and Deseronto Navigation Co., Deseronto, Ont., born at Frankford, Hastings Co., Ont., Aug. 25, 1863.

Barlow Cumberland, Vice-President Niagara Navigation Co., born at Portsmouth, Eng., Aug. 5, 1846.

H. G. Elliott, Assistant General Passenger and Ticket Agent, G.T.R., Montreal, born at Chambly, Que., Aug. 22, 1860.

Hon. W. Gibson, railway contractor, Beamsville, Ont., born at Peterhead, Scotland, Aug. 7, 1849.

G. H. Ham, Literary Department C.P.R., at Montreal, born at Trenton, Ont., Aug. 23, 1847.

W. P. Hinton, General Freight and Passenger Agent, Canada Atlantic Ry. and Canada Atlantic Transit Co., Ottawa, Ont., born at Hintonburg, Ont., Aug. 30, 1871.

R. Kerr, Passenger Traffic Manager, C.P.R., Montreal, born at Toronto, Aug. 1845.

G. M. Lang, Resident Engineer, C.P.R., at Winnipeg, born Ottawa, Ont., Aug. 16, 1859.

J. D. McDonald, District Passenger Agent, G.T.R., at Toronto, born there Aug. 27, 1855.

T. McHattie, Master Mechanic, G.T.R., at Montreal, born Dufftown, Banffshire, Scotland, Aug. 8, 1854.

J. E. Matthews, C.P.R. soliciting passenger agent, Charlottetown, P.E.I., born at Albany, P.E.I., Aug. 17, 1869.

W. E. Mullens, Superintendent of Transportation Central Vermont Ry., St. Albans, Vt., born at Stratford, Ont., Aug. 13, 1870.

W. S. Nevins, Travelling Freight Agent, C.P.R. and Minneapolis, St. Paul & Sault Ste. Marie Ry., Buffalo, N.Y., born at Towanda, Pa., Aug. 13, 1850.

W. M. Porteous, Freight Agent, C.P.R., at St. Louis, Mo., born at Edinburgh, Scotland, Aug. 3, 1857.

J. F. Richardson, Superintendent Eastern Division C.P.R. Telegraphs, Montreal, born at Granby, Que., Aug. 23, 1861.

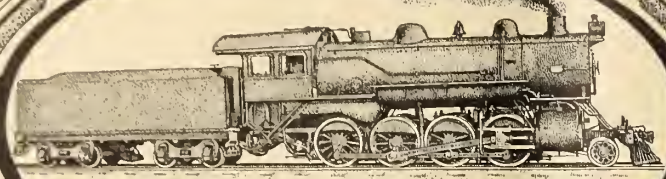
C. R. Scoles, General Manager, Atlantic and Lake Superior Ry., New Carlisle, Que., born at Grantham, Lincoln, Eng., Aug. 27, 1856.

M. C. Sturtevant, Car Service Agent, G.T.R., Montreal, born at St. Albans, Vt., Aug. 28, 1866.

W. N. Warburton, General Manager, Chatham, Walkceburg and Lake Erie Ry., St. Thomas, Ont., born there Aug. 24, 1851.

The General Railway Signal Co., Buffalo, N.Y., has issued an illustrated catalogue, describing electric interlocking devices for railway signal work, which it manufactures. On Jan. 1, of the current year, 162 electric interlocking plants had been installed or contracted for by 41 railways, including the G.T.R.

M. Beatty and Sons (Ltd.) has been incorporated under the Ontario Companies' Act, with a capital of \$300,000, to acquire and take over the business of M. Beatty & Sons, Welland, Ont., and to manufacture and sell dredges, machinery of all kinds, and contractors' plant generally. The offices of the company are at Welland, and the provisional directors are: W. L., H. LeG., and A. O. Beatty.



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FOR
COMPLETE POWER PLANTS**

**OUR HEATING SYSTEM
IS ESPECIALLY DESIGNED FOR ROUNDHOUSES, MACHINE
SHOPS AND OTHER TERMINAL BUILDINGS**

**OUR
AUTOMATIC LOCOMOTIVE BOILER WASHER**
FOR CHANGING WATER, WASHING AND FILLING LOCOMOTIVES
WE USE THE WASTE STEAM AND WATER
FIVE TO SEVEN HOURS SAVED OVER PRESENT METHODS

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WE ALSO MANUFACTURE
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ERIE HEATING COMPANY
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CHICAGO.

EMIL C. OLSON - ILLUSTRATOR

C. P. R. LANDS

THE CANADIAN PACIFIC RAILWAY COMPANY have 12,000,000 acres of choice farming lands for sale in Manitoba, Assiniboia, Saskatchewan and Alberta. Manitoba lands and Assiniboia lands east of third meridian, \$4.00 to \$10.00 per acre according to quality and location. Lands in South-Western Assiniboia and Southern Alberta, \$3.50 to \$8.00 per acre. Ranching lands generally \$3.50 to \$4.00 per acre. Northern Alberta and Saskatchewan lands generally \$6.00 to \$8.00 per acre. Maps showing the lands in detail will be sent free on application.

TERMS OF PAYMENT.

An actual settler may purchase not more than 640 acres, on the ten instalment plan by paying a cash instalment at time of purchase, interest at six per cent. on the unpaid purchase money at the end of the first year, and the balance of the principal with interest in nine equal instalments annually thereafter as shewn in the following table:—

160 Acres at \$3.50 per acre, cash payment \$83.90, first year's interest \$28.58 and nine instalments of \$70.00	
" " 4.00 " " " 95.85, " " " 32.64 " " " 80.00	
" " 4.50 " " " 107.85, " " " 36.73 " " " 90.00	
" " 5.00 " " " 119.85, " " " 40.81 " " " 100.00	
" " 5.50 " " " 131.80, " " " 44.89 " " " 110.00	
" " 6.00 " " " 143.80, " " " 48.98 " " " 120.00	

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

DISCOUNT FOR CASH.

If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. on five-sixths of the purchase money.

Interest at six per cent. will be charged on overdue instalments.

F. T. GRIFFIN,

Land Commissioner C.P.R. Co., Winnipeg.

CANADA NORTH-WEST LAND CO.

This Company has 750,000 acres of selected lands in Manitoba and Assiniboia which offer excellent opportunities to settlers and investors who desire to secure good lands in well-settled districts. These lands are on sale at the Company's Office at Winnipeg, and at the various land agencies of the Canadian Pacific Railway Company.

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OF MONTREAL,
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SALES BRANCHES:

172 GRANVILLE STREET, - HALIFAX, N.S.
IMPERIAL BANK BLDG., - MONTREAL, QUE.
FRONT & YONGE STS., - TORONTO, ONT.
89 PRINCESS STREET, - WINNIPEG, MAN.
403 CORDOVA STREET, - VANCOUVER, B.C.

Canadian Northern Ry. Earnings, etc.

Gross earnings for May, \$349,400; expenses, \$248,800; net earnings, \$100,600 against \$276,100 gross; \$201,900 working expenses, and \$74,200 net earnings for May, 1904. Gross earnings for eleven months ended May 30, \$3,482,900; net earnings \$1,126,200 against \$2,827,700 gross, and \$917,500 net for same period 1903-04. Mileage increased to 1,876 miles, against 1,350 miles.

Approximate earnings for June, \$388,900 against \$297,600 for June, 1904.

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1903-04, from July 1, 1904:—

Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July \$3,398,833.95	\$2,949,181.81	\$1,449,652.14	\$131,125.02+
Aug. 4,474,237.64	2,946,307.21	1,527,930.43	93,827.93+
Sept. 4,220,876.03	2,952,068.47	1,268,807.56	66,541.75+
Oct. 4,743,961.93	3,177,848.02	1,566,113.91	87,913.10—
Nov. 4,751,970.43	3,082,395.69	1,669,574.74	191,503.56+
Dec. 4,562,142.45	2,899,473.62	1,662,668.83	81,523.57+
Jan. 3,252,501.93	2,829,833.46	422,668.47	65,016.44+
Feb. 3,056,094.05	2,753,922.73	302,171.32	219,630.51+
Mar. 4,132,961.50	2,950,134.46	1,182,827.04	331,972.76+
April 4,229,144.50	2,697,338.29	1,531,806.21	119,273.61+
May. 4,229,131.47	2,841,196.59	1,387,936.59	3,630.10—

\$46,051,855.88 \$32,079,700.35 \$13,972,155.53 \$1,208,961.95+
Approximate earnings for June, \$4,376,000 against \$4,365,000, for June, 1904.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for May, \$252,279.41; net earnings, \$62,605.43 against \$181,925.45 gross and \$52,118.89 net for May, 1904. Net earnings for eleven months ended May 31, \$790,905.87, against \$700,450.78 for same period, 1903-04. Approximate earnings for June \$245,258 against \$212,745 for June, 1904.

MINERAL RANGE RY.—Approximate earnings for June, \$60,419, against \$55,321 for June, 1904.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for May, \$672,966.81; net earnings, \$246,488.08, against \$489,228.88 gross and \$172,442.48 net for May, 1904. Net earnings for eleven months ended May 30, \$3,837,601.09 against \$2,029,410.12 for same period 1903-04. Approximate earnings for June, \$725,935, against \$562,401 for June, 1904.

Canadian Pacific Railway Land Sales.

	Acres.	Amount.	
	1904-05	1903-04	1904-05
July..	36,425.75	267,647.32	\$177,473.04
Aug..	15,669.90	263,339.45	88,735.88
Sept..	16,470.02	60,441.12	73,642.96
Oct..	23,792.84	15,950.07	104,843.47
Nov..	23,392.84	22,563.05	112,261.70
Dec..	32,196.59	30,146.00	142,583.40
Jan..	34,500.41	116,840.78	141,750.50
Feb..	27,503.56	14,729.69	116,278.76
Mar..	15,906.61	12,992.06	87,576.00
April..	22,030.37	24,064.43	125,210.08
May..	58,095.21	51,477.16	282,796.37
June..	64,968.62	155,973.24	340,759.75
	370,952.72	1,036,172.28	\$1,793,912.81
			\$4,583,013.57

Grand Trunk Ry. Earnings, Expenses, etc.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1905.	1904.	Increase.	Decrease.
Jan.	\$2,556,340	\$2,253,378	\$302,962	...
Feb.	2,163,683	1,649,525	514,158	...
Mar.	2,911,267	2,649,779	261,488	...
April....	2,850,125	2,838,046	11,179	...
May.....	2,969,486	3,119,126	...	149,640
	\$13,450,901	\$12,510,745	\$940,147	...

GRAND TRUNK RY. CO.

The following figures relate to the individual lines, and are made out in sterling:

Revenue for May:	1905.	1904.	Increase.	Decrease.
Gross receipts ...	£506,200	£499,300	£6,900	...
Working expenses	321,200	315,600	5,600	...
Net profit....	£185,000	£183,700	£1,300	...
Aggregate from Jan. 1 to May 31:	1905.	1904.	Increase.	Decrease.
Gross receipts ...	£2,199,100	£2,021,300	£177,800	...
Working expenses	1,562,100	1,559,000	3,100	...
Net profit ...	£637,000	£462,300	£174,700	...

GRAND TRUNK WESTERN RY. CO.

Revenue for May:	1905.	1904.	Increase.	Decrease.
Gross receipts ...	£ 73,500	£92,100	£18,600	...
Working expenses	66,000	70,100	...	4,100
Net profit ...	£ 7,500	£22,000	...	£14,500

Aggregate from Jan. 1 to May 31:

	1905.	1904.	Increase.	Decrease.
Gross receipts....	£440,700	£428,000	£11,800	...
Working expenses	376,800	367,300	9,500	...
Net profit.....	£63,900	£61,600	£ 2,300	...

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.

Revenue for May:	1905.	1904.	Increase.	Decrease.
Gross receipts....	£ 17,100	£ 20,100	...	£ 3,000
Working expenses	16,900	17,600	...	700
Net profit ...	£ 200	£ 2,500	...	£ 2,300

Aggregate from Jan. 1 to May 31:

	1905.	1904.	Increase.	Decrease.
Gross receipts....	£110,200	£ 90,900	£19,300	...
Working expenses	91,500	81,500	10,000	...
Net profit....	£ 18,700	£ 9,400	£ 9,300	...

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from Jan. 1 to June 30:	1905.	1904.	Increase.	Decrease.
Grand Trunk..	£2,729,610	£2,565,348	£164,262	...
G. T. Western	595,793	506,545	...	£752
D. G. H. & M.	130,213	115,110	15,103	...
Total.....	£3,365,616	£3,187,003	£178,613	...

The C.P.R. has purchased the Grand Hotel, and 560 acres of land, including the mineral springs, at Caledonia Springs, Ont. The purchase price is said to be \$500,000. The hotel will be operated along with the other C.P.R. hotels.

The Hudson's Bay Co.'s report for the year ended May 31 last shows comparative results as follows:—

	1905.	1904.
Trading Profits	£102,969	£ 98,934
Land Profits.....	187,364	179,047
Total Profits.....	£290,233	£277,981

The dividends paid in the last year amounted to 56s. per share, or 29% as compared with 35s. or 17½% in the previous year, in which year £1 per share capital was returned to the shareholders.

The Canadian Westinghouse Co. has issued an illustrated booklet describing briefly the lines of electrical apparatus manufactured by the company at its works, Hamilton, Ont. The booklet describes and illustrates alternating current, generators and motors; alternating and direct current motors; alternating current turbine generators; Westinghouse rotary converters; transformers; lighting protection; Westinghouse direct current railway motors; Westinghouse motor controllers; single phase, railway system; catenary line system; unit switch system of multiple control; Westinghouse-Baldwin electric locomotives, etc. The booklet is printed on toned paper, with a cover in colors showing an Indian bearing a torch, symbolic of the past, and a figure bearing an electric light, symbolic of the light of the present.

The Canadian Westinghouse Co. had a neat and attractive exhibit at the recent meeting of the Canadian Electrical Association. The headquarters were in room 1 of the Hotel Windsor, Montreal. Distributed at various places in the hotel were reproductions of the company's trade mark formed by electric light combinations. The company had on exhibition a line of its induction motors, direct current motors, OD transformers, series and multiple AC arc lamps, lightning arresters, fuse blocks, portable testing instruments, etc. Distribution was made of a complete line of the company's literature illustrating and describing its products. A striking souvenir folder, prepared for the occasion, was given out to those attending the Convention. The following officials and representatives of the company were at the Convention:—P. J. Myler, General Manager; N. S. Braden, General Sales Manager; H. D. Bayne, Manager Montreal offices; T. E. Dryden, Manager Toronto office; R. J. Dunlop, Attache Toronto office; Wm. Bradshaw, Engineer, from Westinghouse Electric and Manufacturing Co., East Pittsburg, Pa.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Alaska Central Ry.—Reports from Seward, Alaska, state that 80 miles of grading is being gone on with during the current season, but work is being somewhat delayed owing to the difficulty of getting men. The work in this section is heavy. (Mar., pg. 91).

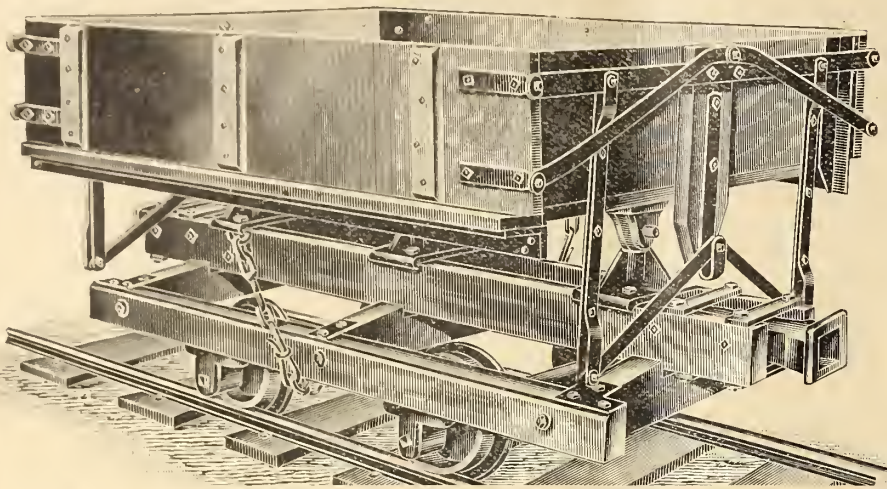
Alberta Ry. and Irrigation Co.—The railway lines taken over by this company include the Alberta Ry. and Coal Co.'s line from Lethbridge to Coutts, Alta., 66 miles, and the St. Mary's River Ry. which starts at Stirling, 19 miles from Lethbridge, and extends to Cardston, 46.77 miles. It was opened for traffic from Stirling for 30 miles, May, 1902, and to Cardston at a later date. Under the charter of the St. Mary's River Ry. the company has power to construct lines to any point in range 1, west of the 5th meridian; from any point between Spring Coulee and Mountain View, westerly to the C.P.R. between range 2 west of the 5th meridian, and range 27 west of the 4th meridian; from Sterling easterly to range 4 west of the 4th meridian between the C.P.R. and the International boundary. The mileage of these extensions is undetermined as they are branch lines not exceeding 15 miles in length in any one case. An extension of 16 miles from Raley Junction to Kimball, and thence to the International boundary, seven miles, has been authorized. The St. Mary's River Ry. was constructed as a narrow gauge railway, but a third rail was laid down about three years ago from Sterling to Raymond, to accommodate the standard gauge traffic to the beet sugar factory there. The entire line is now being made standard gauge. (Mar., pg. 91).

Canada Atlantic Ry.—The G.T.R. is reported to be securing lands adjoining the Central Station, Ottawa, with a view of yard extension as soon as the line passes under its control. Plans have been approved for the strengthening and reconstruction of a number of bridges on the line and the work is being proceeded with. (July, pg. 281).

Cape Breton Coal, Iron and Ry. Co.—Press reports state that the company has completed the laying of rails from Homeville Junction, on the Sydney and Louisburg Ry., to its collieries at Broughton, N.S. (May, pg. 182).

Central Ry.—This company was originally chartered as the Ottawa River Ry. to construct a railway from Montreal to Ottawa. It proposed to construct an electric line, and while some surveys were made no actual construction was undertaken. It subsequently obtained Dominion and Provincial charters to extend to Georgian Bay, and during the current year it was given power to change its name to the Central Ry. Co. It was authorized last session of the Ontario Legislature, under the title of the Ottawa River Ry., to construct a branch from its Montreal-Georgian Bay line at Orillia, to Port Stanley. At a recent meeting of the directors held at Montreal, Senator Denville was elected President succeeding the late Col. McMullen. J. S. Shanley has been appointed Chief Engineer; and instructions were given for the completion of the location of the line along the south shore of the Ottawa River to Bickland. It was stated that arrangements would be made for the immediate starting of construction of the line between Montreal and St. Andrews, Que. A meeting of shareholders was held July 10, when authority was given to issue mortgage bonds on account of construction, and to increase the capital stock of the company. (Feb., pg. 51, and Sept., 1904, pg. 315).

Esquimaux and Nanaimo Ry. Under the C.P.R. control it is likely there will be considerable development of this line. J. S.



DUMP CARS

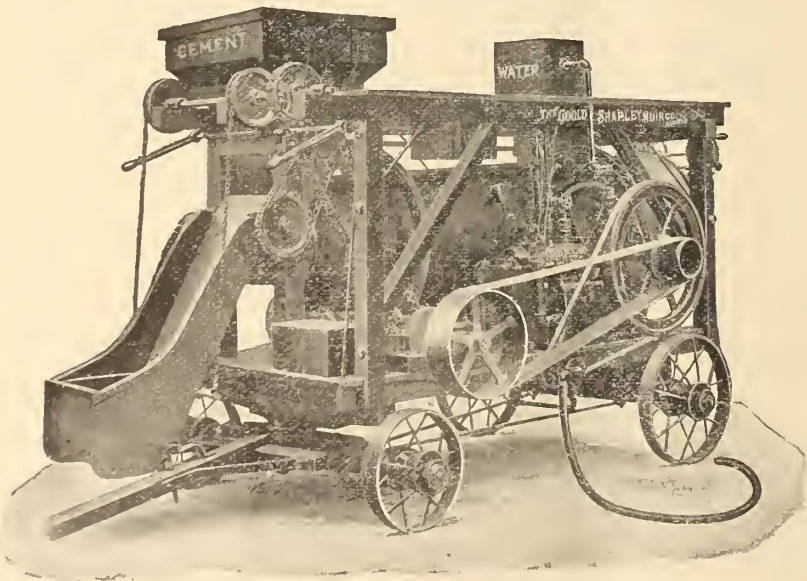
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WAGONS DUMP CARTS TRUCKS
CEMENT MIXERS
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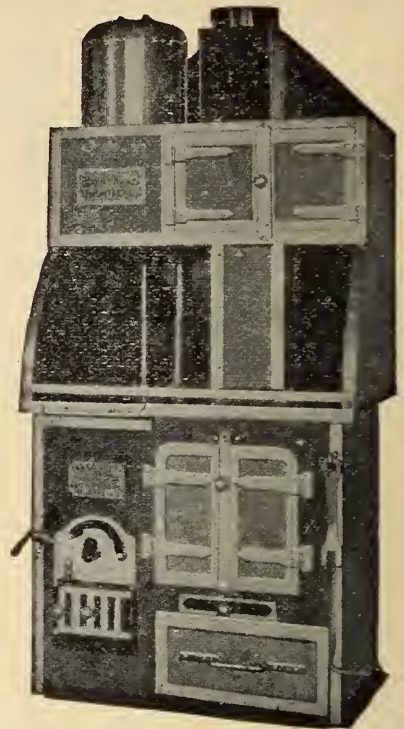
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OVER THE

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To the Great Lewis and Clark
Centennial Exposition,
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Dennis, the C.P.R. Land Commissioner for B.C., who is a Vice-President of the E. and N. Ry., in an interview, is reported to have said the first object of the company would be to ascertain the quality and extent of the agricultural land in the company's grant, and for that purpose four exploration parties had been organized to work from Victoria, Nanaimo, Alberni and Comox. A fifth party, under the charge of a railway engineer, had also been organized to go north to examine feasible routes for the extension of the line and for such lines as might be necessary to open up the interior of the island. (May, pg. 143).

Georgian Bay Seaboard Ry.—W. D. Matthews, H. C. Hammond, L. A. Hamilton, H. Beatty and F. G. Osler, were incorporated last session of the Dominion Parliament with this title to construct a railway from Georgian Bay between Port Severn and Penetanguishene, south-easterly through Simcoe, Ontario, Victoria, Peterborough, Hastings, Lennox and Addington, and Lanark, or any of them to the Ontario and Quebec Ry. During its passage through Parliament it was admitted that this was a C.P.R. measure, and it is understood that the line intended to be constructed under it will extend from Victoria Harbor on Georgian Bay to Sharbot Lake, at which point the Ontario and Quebec Ry. (one of the lines making up the C.P.R. system), is crossed by the Kingston and Pembroke Ry. (another of the C.P.R. acquired lines), or connection may be made at Maberly, Ont. We were advised July 10, that while no actual surveys had been made between these points, engineers were in the field making a reconnaissance of the same. The survey is in charge of H. M. Killaly.

Great Northern Ry. of Canada.—The proposed connection of the line with the Quebec Bridge, Quebec papers state, calls for the construction of a line $7\frac{1}{2}$ miles in length. The route will be from the bridge through St. Foy parish to a point about three miles from the city, where connection will be made with the company's independent line from Shawenigan Junction, surveys for which have been made. It is also stated that a contract for the construction of this $7\frac{1}{2}$ miles of line has been let to J. T. Schel, and that work will be started as soon as the line is approved.

We were advised July 6 that nothing had been settled in regard to the construction work to be undertaken upon this line in the immediate future. A number of important matters have been under consideration, but what will be done this season has not been settled. (July, pg. 286).

Guelph and Goderich Ry.—We are advised that it is expected to have the grading on this line from Guelph to Goderich, Ont., completed by Oct. 1, and that it is hoped to begin track laying at the Guelph end Aug. 15. (July, pg. 281).

Intercolonial Ry.—The supplementary estimates passed at the recent session of the Dominion Parliament provide for the following works:—

Strengthening bridges.....	\$150,000
Double tracking parts of line.....	50,000
Additional and spur lines.....	26,000
Increasing water supply.....	32,000
Semaphores at stations.....	2,050
Improving telegraph service.....	21,500
Improving facilities and accommodation along the line.....	80,000
Engine house, Chaudiere Jet., Que.....	12,000
Engine house, etc., Riviere du Loup, Que.....	45,500
Increased accommodation St. Flavie, Que.....	9,000
To put railway between Indian town and Blackville N.B., into condition for operation.....	25,000
Increased accommodation at Sackville, N.B.....	10,000
Increased accommodation at Moncton, N.B.....	50,000
Increased accommodation at St. John, N.B.....	50,000
Increased accommodation at Truro, N.S.....	50,000
Increased accommodation at Amherst, N.S.....	25,000
Increased accommodation at Pictou, N.S.....	42,500
Increased accommodation at Halifax, N.S.....	50,000

(July, pg. 285)

James Bay Ry.—The grading on this line has been practically completed from six miles north of Parry Sound, southerly to four miles

south of the Severn River, 55 miles in all, and it has been about half graded between Beaverton and Toronto, 63 miles. Tracklaying is in progress south from Parry Sound, and on July 10 had reached to near Lake Joseph. The steel superstructure is being erected over the Seguin River at Parry Sound, and the steel superstructures for the bridges at Wallace Cut, Jeannette's Narrows, Lake Muskoka, are being delivered.

A deputation recently waited on the Dominion Government to obtain consent to the carrying of the line through Orillia instead of the previously located route on the east side of Lake Couchiching. The deviation will add about five miles to the route. (July, pg. 285).

Kingston, Smith's Falls and Ottawa Ry.—The Dominion Government was recently asked by a deputation to revoke the subsidy formerly granted to this projected line between Kingston and Ottawa, Ont. As no railway subsidies were voted at the recent session, it is not likely that any construction will be arranged for this year. (July, pg. 285).

Kootenay Central Ry.—We are officially advised that it is expected to do some of the grading on this projected line from Golden to Fort Steele, B.C., during the present season and that construction will be commenced at the Golden end. C. H. Pollen stated on his return from Montreal, July 4, that the line would be built by the K.C. Ry. Co., and that contracts would be let as soon as plans were approved. (July, pg. 309).

Nicola, Kamloops and Similkameen Coal and Ry. Co.—The line now under construction will be about 45 miles in length, from Spence's Bridge on the C.P.R. transcontinental line to Nicola Lake. The route will follow the Nicola River closely for its whole length, crossing and recrossing it. For the first 20 miles from Spence's Bridge the rise is rapid, entailing grades of 1% for a large proportion of the way, with heavy work, most of it in rock, and one tunnel in gravel 400 ft. long. The valley for that distance is so narrow that it may be said to flow through a canyon. South of that, however, the valley widens out and for the remaining 25 miles to Nicola Lake the work is light, as also are the gradients. There are 10 crossings of the Nicola River, each of which will require a span of 125 or 150 ft. It is expected that the roadbed will be completed during the spring of 1906, and track laid during the summer of the same year.

The contractors are Loss and Macdonell, C. E. Loss making his headquarters at Vancouver, and Jas. Macdonell being in charge of construction at Spence's Bridge. Sub-contracts have been let as follows, starting from Spence's Bridge, Foss and Sutherland, Fernie, B.C.; J. G. McLean, New Westminster, B.C.; Ironsides, Rennie & Campbell, Vancouver, B.C.; W. P. Tierney, Nelson, B.C.; D. McBeath, Nelson, B.C.; J. B. Bright, Macleod, Alta. Other sub-contractors are J. Antonelle and E. O. Foss. The work is being pushed, the contractors having a large number of men and quantities of plant and material on the ground. H. J. Cambie is Chief Engineer; C. S. Gzowski and L. M. Rice, contractors' engineers; Jas. Macdonell, Manager of Construction, and A. Muir, Paymaster. A press report states that the contractors find that the location posts placed some time ago have been removed and that some delay will be occasioned to the work owing to the line having to be remarked. (July, pg. 285).

The New Brunswick Coal and Ry. Co.'s line which is at present being operated by a commission appointed by the New Brunswick Government extends 58 miles from Norton on the Intercolonial Ry. to Minto, and it is intended later on to construct an extension to Gibson, on the St. John River near Fredericton. The New Brunswick Legislature at its last session voted \$250,000 for necessary improvements and repairs on the line. G. Brown,

C.E., made the surveys for the commissioners upon which the works are to be carried out, and the plans for the rebuilding of certain bridges and trestles and the improvement of the permanent way, for which tenders have been asked, are to be seen at the office of the Provincial Engineer, Fredericton. (July, pg. 285.)

New Brunswick Southern Ry.—We are advised that it is intended to change the location of the line so that it will serve New River Beach, and that a survey is being made of the route to New River Beach. Surveying parties are also working on the main line with a view to relocating at some points. It is proposed to rebalast the line and make it part of a through system, viz., the Maine Central Rd. (June, pg. 285).

Nova Scotia Eastern Ry.—At a meeting of shareholders held in Toronto, July 11, authority was given J. M. Grier, Vice President, and T. P. Coffee, Secretary, then in London, Eng., to act for the company in the negotiations for the sale of the company's bonds, which the President, J. R. Stratton, of Peterboro, Ont., stated, were practically completed. The lines to be constructed will run from Dartmouth to the Strait of Canso, and from New Glasgow to Country Harbor, N.S., altogether about 225 miles. While it is stated that construction had been started on the line, it is understood that it is a formal start in order to comply with the terms of the act. It is also understood that there will be some changes in the organization of the company when the sale of bonds is completed, and that the construction will be placed under the charge of an English engineer.

Prince Edward Island Ry.—We were recently advised that the survey of the proposed branch from O'Leary to West Cape, about 12 miles, was expected to be started about the end of July. The survey made from Kensington to Stanley Bridge, was in the nature of a reconnaissance, but no report has been made of it. (July, pg. 285).

Quebec Bridge and Ry. Co.—The approaches to the bridge on the south side of the St. Lawrence, with the exception of filling in and embankment work, were completed early in July, and trains of materials are run from Chaudiere, on the G.T.R. to the bridge site. (July, pg. 285).

Saskatchewan Bridge Co.—An Act incorporating a company with this title was passed by the Dominion Parliament in 1904, for the purpose of constructing a railway bridge across the Saskatchewan River at Edmonton, Alta. The organization meeting was held in Montreal, June 30, when directors were elected. Following are the officers and directors for the current year:—President, C. M. Hays; Vice-President, F. W. Morse; Secretary, H. Phillips; other directors: W. Wainwright, H. A. Allan, Jos. Hobson, W. H. Biggar, K.C., H. A. Woods; Treasurer, F. Scott.

Standard Coal and Ry. Co.—A press report states that surveys are being made for the construction of a railway between Truro and Parisboro, and Parisboro and Maccan, N.S., the party having started from Truro, where a junction is proposed to be made with the Intercolonial Ry. The company is developing coal mines at Newville. The S.C. and R. Co. was incorporated by the Nova Scotia Legislature, L. H. and E. Gillespie, W. H. Magee and C. P. Harris being the provisional directors. The capital of the company is fixed at \$200,000 and power is given to issue bonds. It is authorized to construct a railway between the points named, and branches therefrom.

Temiskaming and Northern Ontario Ry.—It is understood that the Commissioners have received reports upon the proposal to operate the 112 miles of line between North Bay and New Liskeard, Ont., by electricity, and that the same are being considered by the Ontario Government. In connection with the further



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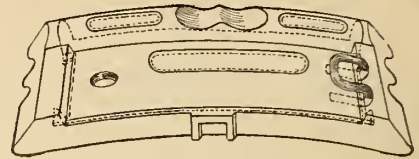
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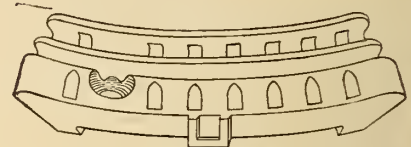
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extension of the line, a survey party has been sent out to look over the country between Lake Abitibi, to which point construction is now being pushed, and James Bay. This party will report as to the practicability and advisability of extending the line to salt water at or near Moose Factory. (July, pg. 287).

Tillsonburg, Lake Erie and Pacific Ry.—Work has been started on the extension of this line from Ingersoll, to the point of intersection with the C.P.R. near Embro, Ont. Surveys are in progress for a route from this point to St. Mary's and Stratford. A contract for this extension had not been let to July 18. (May, pg. 185).

Vancouver, Victoria and Eastern Ry.—After several protracted fights before the Railway Committee of the House of Commons the company's bill for an extension of time for the construction of its line, and for power to make connections with lines south of the International boundary, where the conformation of the country rendered such a connection advisable, was approved. The bill was subsequently passed and is now law. (July, pg. 287).

The Wellington Colliery Co., belonging to the Dunsmuir Estate, operated at June 30, 1904, 15.75 miles of railway, connecting its collieries with the Esquimalt and Nanaimo Ry.; and from the E. and N. Ry. to the wharf at Ladysmith. A new short line has been constructed to connect Ladysmith and

Railway Equipment Notes.

We were advised June 26 that the G.T.R. had decided not to place orders for further new equipment at present.

The C.P.R. proposes placing an order for 10 switching locomotives at its Angus, Montreal, shops, at an early date.

The James Bay Ry. has received 75 flat cars, 60,000 lbs. capacity, from the Crossen Car Manufacturing Co., Cobourg, Ont.

The G.T.R. between June 3 and July 1, added to its equipment 28 cabooses which were constructed at its Montreal shops.

The C.P.R. has placed an order for four 25-ton pull rapid unloaders for ballast cars, of a similar type to 15 now in use on its lines.

The Canadian Northern Ry. has added to its equipment ten 10-wheel locomotives from the Locomotive and Machine Co., of Montreal; 150 box cars, 60,000 lbs. capacity, from Rhodes Curry & Co., Amherst, N.S.

We are advised that no orders have been placed for the locomotives, ballast cars, snow ploughs and flangers for the Intercolonial Ry., under the appropriations passed by the Dominion Parliament last session.

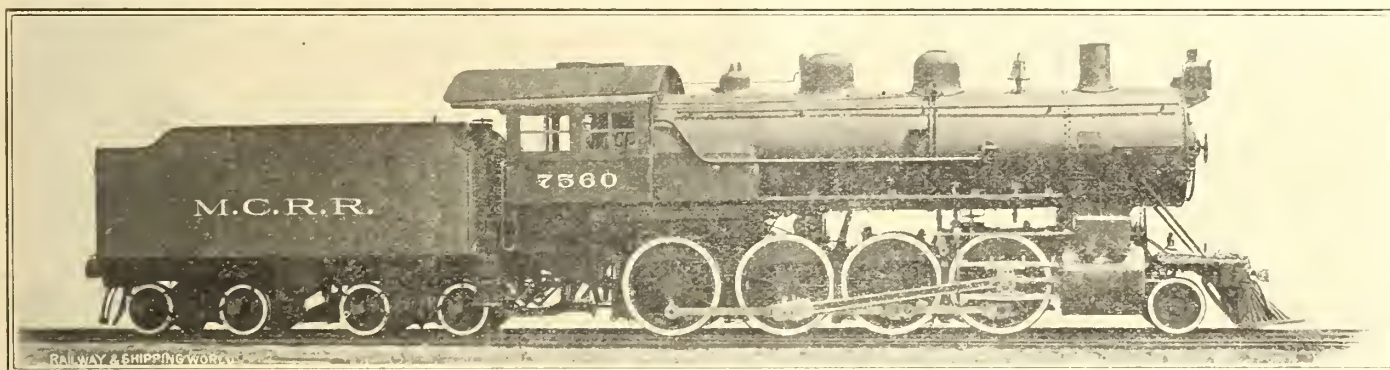
The Temiskaming and Northern Ontario Ry. has placed an order for three second-class coaches with the Crossen Car Manufacturing Co., Cobourg, Ont. The Commission-

ers will be furnished inside in birch, and outside in mahogany. They will have a seating capacity of 82 passengers.

The Locomotive and Machine Co., of Montreal, is building a number of locomotives for the Michigan Central Rd. The locomotives are duplicates of those recently completed at the Schenectady shops of the American Locomotive Co. An illustration of one of the locomotives completed at Montreal is given on this page. They are of the 2-8-0 type, having the following dimensions:—Cylinders, 23 and 35 in. diameter by 32 in. stroke; 8 drivers, 63 in. diameter; driving wheel base, 17 ft.; total 25 ft. 9 in.; weight on drivers, 174,000 lbs.; total, 198,500 lbs.; tank capacity, 14 tons of coal and 6,000 U.S. gals. of water. Weight of tender loaded, 128,000 lbs.

Canadian Freight Association.

The regular summer meeting was held at Hotel Champlain, Bluff Point, N.Y., July 12. Among the members and guests present being the following:—President, W. R. MacInnes, Freight Traffic Manager, C.P.R.; Second Vice-President, F. J. Watson, Division Freight Agent, G.T.R., Montreal; Mrs. Watson and Mrs. Dickson Cottingham, Montreal; Secretary Treasurer, J. Earls, and E. J. Earls; F. F. Backus, G.F. & P.A., Toronto, Hamilton and Buffalo Ry.; E. E. Belcourt, Superintendent



CONSOLIDATION LOCOMOTIVE BUILT FOR THE MICHIGAN CENTRAL RD., BY THE LOCOMOTIVE AND MACHINE CO. OF MONTREAL.

Extension mine, and was opened for traffic July 1. This short line will remove all the colliery traffic from the E. and N. Ry. which has been taken over by the C.P.R.

The Elements of Railway Economics.

There has been recently published from the Clarendon Press, Oxford, Eng., a book of 159 pages, by W. M. Acworth, M.A., with this title. Railway economics is a pretty big subject, and one about which a great deal is written, but upon which there is not as yet a standard authority. Railway conditions vary in every country, and problems that have to be dealt with in one country do not trouble the railway managers at all in another, but there are a number of principles upon which the sound and successful management of railways in all countries must be based. For nine years Mr. Acworth has been lecturing at the London School of Economics upon this subject, and the want of a suitable text book for students led him to undertake the preparation of this book. Though dealing mainly with British lines and their growth, and rising throughout British names, the book will be of interest and value to students of railway economics in Canada. The work is an instalment of a larger volume which is in preparation. Mr. Acworth delivered a number of lectures to railway men in the U.S., in 1904, which were highly spoken of by the technical press there.

ers are in the market for one or more first-class passenger cars, and two second-hand locomotives.

We were advised July 17 that no serious consideration had been given by the Lake Superior Corporation to the question of the re-opening of its car building shops at Sault Ste. Marie, Ont. Press reports recently stated that the shops were to be restarted immediately.

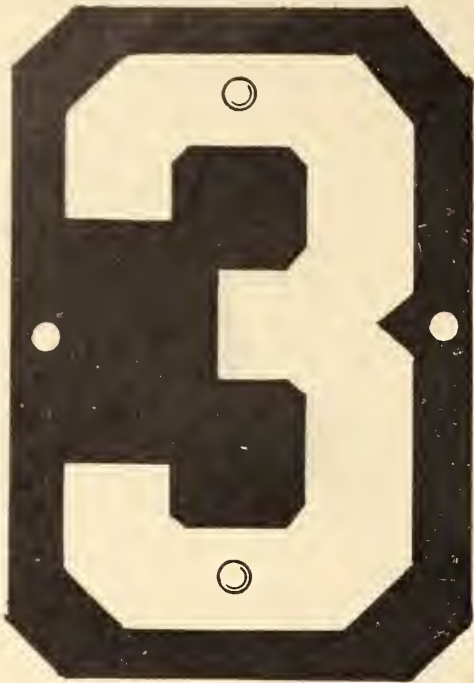
Among the supplementary estimates passed at the recent session of the Dominion Parliament was one for \$850,000 for rolling stock for the Intercolonial Ry. The Minister of Railways stated that it was proposed to buy 14 locomotives, 360 box cars, 25 refrigerator cars, an observation car, and a number of other cars.

The C.P.R. received the following rolling stock between June 15 and July 15: one switching and two passenger and freight locomotives, five sleeping cars, 10 colonist cars and 11 box cars from its Angus, Montreal, shops; two freight locomotives from the Canadian Locomotive Co., and 28 vans from its Farnham, Que., shops.

The five suburban cars under construction for the C.P.R. at its Angus shops, Montreal, will be 72 ft. long by 9 ft. 10½ in. over frame. They will have six wheel trucks and open steel platforms. They will be lighted by acetylene gas and will have Westinghouse air and independent hand brakes. The

Shedden Co., Montreal; J. H. Black, G.S., Temiskaming and Northern Ontario Ry.; E. T. Boland, Dominion Line S.S., Toronto; M. H. Brown, General Freight Agent, C.P.R., Toronto, Mrs. Brown; W. B. Bulling, Assistant Freight Traffic Manager, C.P.R., Toronto, Mrs. Bulling, the Misses A. M. and F. Bulling; G. S. Cantlie, Superintendent Car Service, C.P.R., F. Conway, G.F. & P.A., Kingston and Pembroke Ry., the Misses Conway; D. D'E. Cooper, C.F.A., Leflugh Valley Rd., Mrs. Cooper; C. E. Dewey, Division Freight Agent, G.T.R., Toronto, Mrs. Dewey; J. E. Hawkins, C.F.A., Delaware & Hudson Co.; C. A. Hayes, Asst. Genl. Fr't Agent, G.T.R., Chicago; T. Henry, T.M., Richelieu and Ontario Navigation Co., Mrs. and Miss Edith Henry; W. P. Hinton, G.F. & P.A., Canada Atlantic Ry., Mrs. Hinton; S. P. Howard, General Freight Agent, C.P.R., Montreal; C. Howe, A.G.F.A., Michigan Central Rd., Buffalo, N.Y.; A. Lalonde, C.F. & P.A., Boston and Maine Rd.; R. W. Long, Division Freight Agent, G.T.R., Stratford, Ont., Mrs. Long; J. W. Loud, Freight Traffic Manager, G.T.R., the Misses Loud, and Miss Lovell, Montreal; A. C. Lytle, G. S., Orford Mountain Ry., Mrs. Lytle; L. Macdonald, Division Freight Agent, G.T.R., Hamilton, Ont., Mrs. Macdonald; H. C. McCullough, G.F. & P.A., Delaware & Hudson Co., Mrs. McCullough; M. MacGregor, G.C.A., Erie Rd., Toronto, Mrs. MacGregor; F. D. Mackenzie, C.F.A., Pennsylvania Rd., Toronto, Mrs. Mackenzie; J. B. Morford, A.E.G.M.,

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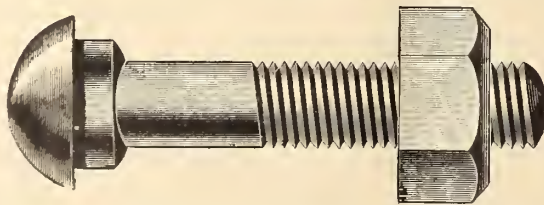
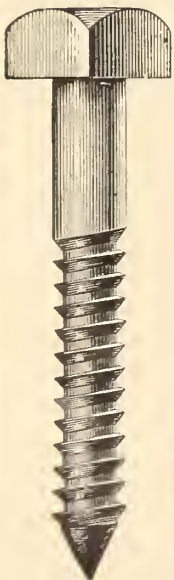
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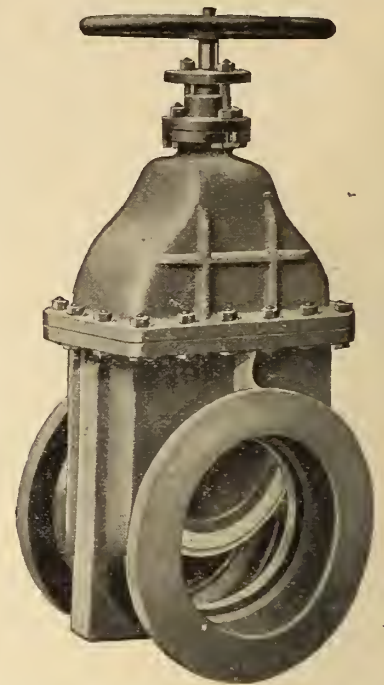
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The morning of July 12 was devoted to meetings of the freight inspection, car service, classification and executive committees, the general meeting of the Association being held in the afternoon. A resolution was adopted expressing the thanks of the Association to the managements of the Delaware and Hudson Co., and of the Hotel Champlain, and appreciation of the kindness and many acts of courtesy extended to the members and their guests. Special mention was made of Messrs. Wadsworth, Rolfe and McCullough, of the D. & H. Co., and of E. L. Brown, Manager of the hotel, and the assurance was given that the members would ever cherish pleasant recollections of the beauties of Bluff Point and its surroundings. A telegram was sent to Paul Wadsworth, conveying the greetings of the members and expressing their best wishes for his speedy convalescence.

While the general meeting was in progress in the afternoon, the ladies of the party, under the guidance of Messrs. Rolfe and McCullough, went on a trip to Burlington, Vt., as the guests of the Champlain Transportation Co. The steamer Chateauguay was taken from the hotel wharf, stops being made at Valcourt and Port Kent. At Burlington the party transferred to the steamer Vermont for the return journey. The day was a most delightful one and the trip was much enjoyed. On the Wednesday the party dispersed. A number stayed on at the hotel, some enjoying a drive on the sward of the beautiful green drive around the hotel grounds, some visiting the golf links, some resting quietly on the spacious verandahs and viewing the magnificent scenery of Lake Champlain on one side, or of the Adirondacks on the other, and everyone exploring the mysteries of the grotto, with its refreshing effects. The evening train was taken for Montreal. A small party visited Ausable Chasm, some 12 miles from the hotel, and returned delighted with its natural wonders. A considerable number took the early boat and went down Lake Champlain to Fort Ticonderoga, being entertained at dinner by the D. & H. Co. From Fort Ticonderoga most of them returned by train to Montreal, others going home by way of Albany, N.Y., and enjoying the trip on Lake George.

Very much regret was felt at the absence of Paul Wadsworth, Freight Traffic Manager of the Delaware & Hudson Co., owing to illness, especially as the meeting was held at Lake Champlain on his invitation. In his absence the honors of the occasion were very agreeably performed by C. E. Rolfe, General Freight Agent, and H. C. McCullough, General Eastern Freight Agent.

F. J. Watson, Division Freight Agent, G.T.R., Montreal, received a hearty welcome and congratulations on his recovery from his recent illness.

Much sympathy was expressed for J. B. Morford, Assistant to the General Manager, Michigan Central Rd., who, a few hours after

arriving at Bluff Point, received a telegram summoning him to the death-bed of his sister at Brooklyn, N.Y.

The party were much indebted, for many courtesies during their stay, to A. Lichtenhein, of the Galena-Signal Oil Co., who with his family is occupying one of the Hotel Champlain cottages and enjoying his favorite recreation, golf.

Dominion Railway Subsidy Contracts.

Since Jan. 1, the Department of Railways has entered into contracts with seven companies for the construction of 395 miles of line, under the terms and conditions of the acts passed to aid certain railways therein named. The lines aided, with mileage and dates of contract, follow:—

Atlantic, Quebec and Western Ry.—From Paspebiac to Gaspe, Que., not exceeding 102 miles. (Feb. 25).

Bruce Mines and Algoma Ry.—From Bruce Mines Junction to the town of Bruce Mines, Ont., not exceeding 3 miles. (Jan. 28).

International Ry. of New Brunswick.—From western 10 miles towards the St. John River between Grand Falls and Edmundston, N.B., not exceeding 100 miles. (May 13).

Klondike Mines Ry.—From Dawson to Stewart River, Yukon Territory, not exceeding 84 miles. (Feb. 1).

Mabou and Gulf Ry.—From Mabou Coal Mines to near Glendyer, thence to Orangedale, N.S., on the Intercolonial Ry., not exceeding 34 miles. (July 5).

Nicola, Kamloops and Similkameen Coal and Ry. Co.—From Spence's Bridge on the C.P.R., to Nicola Lake, B.C., not exceeding 45 miles. (April 27).

Orford Mountain Ry.—From Eastman to the townline between township of Bolton, Eastport, and township of Potton, Que., not exceeding 12 miles. (Mar. 9). From Kingsbury to Windsor Mills, Que., not exceeding 10 miles. (June 12). From the main line between Lawrenceville and Eastman to Lake Bonella, Que., not exceeding 5 miles. (June 23).

The St. Maurice Valley Ry. Co. was incorporated by the Dominion Parliament in 1904, with power to construct a railway from Three Rivers, Que., crossing the C.P.R. tracks there to Shawenegan Falls, Grand Mere, St. Jean des Piles, and thence via the Mattawin River valley, to the Eastern Division of the G.T. Pacific Ry. At the recent session an act was passed extending the time for construction of the line and permitting its operation by electricity. A survey of the line between Three Rivers and Shawenegan Falls, has been made by H. Carre, and it is probable that construction will be started this year. It has not been decided whether the line will be operated by steam or electricity. It is said that on completion the line will be leased to the C.P.R.

D. A. Starr, General Manager Clyde Valley Electrical Power Co., Glasgow, Scotland, writes:—"I have received the last copy of THE RAILWAY AND SHIPPING WORLD, and have just had the pleasure of reading it. I do not know when I have enjoyed so much home news."

Members of the House of Commons have been supplied with cards to enable them to travel free by rail. The cards, which bear the Royal Arms, a number and the year, read as follows:—"Mr. — is a member of the House of Commons of Canada, and is entitled by law to free transportation with his baggage upon all railway trains in Canada. Attest, Thos. B. Flint, Clerk of the House of Commons." The cards are to be signed by the members.

MAINLY ABOUT PEOPLE.

Jas. Mills, Railway Commissioner, who has been seriously ill, is resting at Dorset, Lake of Bays, Ont.

Miss M. V. Lalonde, sister of A. E. Lalonde, C.P.R. City Passenger Agent, Montreal, died there, June 29.

A. C. Killam, K.C., Chief Railway Commissioner, is spending some time at Winnipeg with his family.

W. B. Bulling, Assistant Freight Traffic Manager, C.P.R., and Mrs. Bulling, are visiting friends at Keewatin, Ont.

W. R. MacInnes, Freight Traffic Manager C.P.R., and Mrs. MacInnes, returned to Montreal on July 8, from England.

T. Ahern, Ottawa, was presented with a gold locket recently, on the occasion of the celebration of his 50th birthday.

A. R. Creelman, K.C., Chief Solicitor C.P.R., and family sailed from Montreal July 5, on the Lake Manitoba, for a trip to Great Britain.

Hon. A. G. Blair, formerly Minister of Railways and Canals, together with Mrs. and Miss Blair, are spending some time in Muskoka, Ont.

D. D. Mann, of Mackenzie, Mann & Co., is reported to have purchased the St. Leon Springs Hotel property, St. Leon Springs, Que.

M. Starrs, formerly an ex-Alderman of Ottawa, died there recently, aged 72. He was a contractor on the construction of the C.P.R. short line.

W. Downie, General Superintendent Atlantic Division C.P.R., has returned to St. John, N.B., after a two months' trip to his native country, Ireland.

P. W. Wetmore, General Passenger Agent New Brunswick Southern Ry., was recently presented with a meerscham pipe and smokers' outfit by the employees.

J. G. Laven, who died in Hamilton, Ont., July 23, was for about 25 years Canadian Passenger Agent for the Michigan Central Ry., but retired about 1899.

C. M. Hays, Second Vice-President and General Manager G.T.R., has been appointed a member of the Permanent Commission of the International Railway Congress.

W. Whyte, Second Vice-President C.P.R., and J. A. M. Aikens, C.P.R. local solicitor at Winnipeg, Man., have been appointed local directors of the Imperial Bank.

A. Lichtenhein, of the Galena Signal Oil Co., and his family, are spending the summer at Bluff Point, N.Y., where they are occupying one of the Hotel Champlain cottages.

J. E. Price, General Superintendent Intercolonial Ry., is reported seriously ill at Moncton, N.B., from diabetes, and it is said little hope is held out for his recovery.

Geo. Ham, of the C.P.R. head office staff, Montreal, was operated on in Montreal, July 25, for appendicitis. Mrs. Ham is very ill and her recovery is thought to be doubtful.

M. D. Almond, an engineer, and W. White, transitman, on one of the Transcontinental Ry. survey parties, working near Lake Abitibi, were drowned in the lake at the end of June.

W. H. Moore, Assistant to the President Toronto Ry., and Secretary Canadian Northern Ry., was elected a member of the Delta Chi Fraternity Convention recently held in Toronto.

E. A. Rhodes, son of N. A. Rhodes, Vice President of Rhodes, Curry & Co., Amherst, N.S., was married there July 12, to Miss G. Pipes, daughter of the Commissioner of Mines for Nova Scotia.

John Cunningham, of the G.T.R. General Freight Department, Montreal, has been on

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a trip to Great Britain, spending most of the time in Ireland, where he visited his birth-place at Bally Bay.

D. Murphy, of the Temiskaming and Northern Ontario Ry. Commission, was a member of the party representing the Canadian Manufacturers' Association, which recently visited Great Britain.

D. W. Campbell, who has been appointed Superintendent of the Oregon Division of the Oregon Rd. and Navigation Co., Portland, Ore., is a native of Ontario, who has been in U.S. railway service for some years.

Paul Wadsworth, Freight Traffic Manager, Delaware and Hudson Co., who has been suffering from inflammatory rheumatism for some three months, most of which time he spent at Sharon Springs, N.Y., is convalescing.

R. H. Shaw, Great Northern Ry. agent at Silvana, Wash., who died there recently, was a brother to J. J. Shaw, C.P.R. train dispatcher, Vancouver, B.C., and of T. W. Shaw, also of the C.P.R. service at Field, B.C.

W. Newman was presented with an address and purse of money by his fellow-employees on the C.P.R., on leaving Revelstoke, B.C., to become roadmaster of the Esquimalt and Nanaimo Ry., at Victoria, the latest C.P.R. acquired line.

The late Hon. J. Sutherland, M.P., Minister of Public Works, held at the time of his death, the following among other securities:—Canadian Northern Ry. bonds, \$50,000; Grand Valley Ry. bonds, \$2,000; C.P.R. stock, \$30,500.

B. W. Folger, of Kingston, Ont., was boarding a street car in Toronto, July 4, when the car started; he was jerked forward and dragged for about a block before the car was stopped and he regained his feet. He escaped without injury.

J. B. Morford, Assistant to the General Manager of the New York Central Rd., and Mrs. Morford, have been at Sparta, Wis., and are now spending a little time at Grand Forks, N.D. They expect to return to St. Thomas, Ont., about Aug. 15.

E. M. Smith, formerly representative of Fairbanks, Morse & Co., Chicago, has been appointed Manager of the Canadian Fairbanks Co.'s railway supply department which includes railway goods manufactured by Fairbanks, Morse & Co.

J. S. Hendry, President Vancouver, Westminster and Yukon Ry., who accompanied the Canadian Manufacturers' Association, of which he is Vice-President for British Columbia, to England, slipped on the deck of the Victorian, while on the voyage to England, and broke his thigh.

G. B. Johnson, who has been appointed assistant Engineer of the Shanghai-Nanking Ry., China, is a son of ex-Mayor Johnson, of Belleville, Ont., who after passing through the Royal Military College, Kingston, Ont., was given a commission in the Royal Engineers. This he has resigned to take up his new duties.

Among those present at the Dominion Day dinner of the Canadian Club in London, Eng., July 1, were Archer Baker, H. D. Annable of the C.P.R. London offices; J. Smithers, Vice-President, and H. H. Norman, Secretary, G.T.R.; and F. Grundy, Vice-President and General Manager Quebec Central Ry., Sherbrooke, Que.

W. M. Brown, who died at Richibucto, N.B., recently, aged 57, was a civil engineer and contractor. He and his brothers were engaged in construction work on several railways in New Brunswick, Nova Scotia and Maine, and the deceased was for 14 years lessee and General Manager of the Kent Northern Ry.

An organization has been formed in Nova Scotia for the purpose of providing suitable

memorials to distinguished Nova Scotians. Among the first of the distinguished sons of the Province to be remembered is Sir Saml. Cunard, the founder of the Cunard Line of steamers, now running between New York and Liverpool, Eng.

D. W. Craddock, chief assistant to D. E. Brown, C.P.R. General Agent at Hong Kong, is spending six months' leave of absence in Great Britain. He spent some days in Toronto and Montreal prior to leaving for Liverpool, and will return to Hong Kong through Canada. He is accompanied by Mrs. Craddock and two children.

H. W. Weller, Associate Member Institute of Civil Engineers, England, and Member of the Canadian Society of Civil Engineers, heretofore in charge of the sales department of Babcock and Wilcox, Montreal, has been appointed General Manager for Canada. He recently returned to Montreal from a trip to England.

A. J. McGee, General Accountant, Temiskaming and Northern Ontario Ry., was born at Lachine, Que., Jan. 24, 1876, and entered railway service in the city ticket office of the Canada Atlantic Ry., Ottawa, Sept., 1892. He was transferred to the audit office, June, 1893, remaining there until the date of his present appointment, May 1, 1905.

G. C. Farish, who has been appointed acting Superintendent, Halifax and South-Western Ry., at Yarmouth, N.S., was auditor of the Halifax and Yarmouth Ry. at the time of its being taken over as the Yarmouth Division of the H. and S.W. Ry. In referring to his appointment in our last issue he was described as chief clerk in the Superintendent's office.

C. B. Smith, Chairman and Consulting Engineer of the Temiskaming and Northern Ontario Railway Commission, has been appointed Engineer of the Hydro-Electric Commission recently appointed by the Ontario Government. He has also been appointed Consulting Engineer by a number of companies developing electric power in Manitoba.

The medals awarded by the Royal Humane Society to the men who risked their lives to rescue the men overcome by gas in the Sarnia tunnel, Oct., 1904, were presented at a town council meeting July 6. The recipients were J. Hamilton, A. Forbes, W. Cameron, J. Arbaugh, F. W. Foster, W. Hawn, C. Fisher, A. McDonald, F. J. McKee, J. Blake.

Miss N. D. Piers, daughter of A. Piers, Manager C.P.R. steamships, was married recently to Capt. H. C. Pritchard, formerly of the 1st Yorkshire Regt., at the Abbey Church, Sherborne, Dorset, Eng., which town was celebrating the thousandth anniversary of its incorporation at the same time with an elaborate series of reproductions of historical events associated with its history.

J. C. Buntzen, who has recently been appointed Managing Director British Columbia Electric Ry., will in future reside in London, Eng. On July 4, the officials and employees of the company met at New Westminster, and presented him with an address, a group photograph of the entire staff and a tea service of solid silver. An address was also presented to Mr. Buntzen on behalf of the New Westminster City Council.

Mrs. C. A. Fletcher, a sister of J. B. Morford, Assistant to the General Manager of the New York Central Rd., died at Brooklyn, N.Y., July 11, aged 67, and was buried in the Morford lot in Laurel Grove Cemetery, Port Jervis, N.Y. J. B. Morford, who had gone from Bluff Point, N.Y., to be at her deathbed, being among the mourners. She was married in 1886 at the residence of J. B. Morford, who then lived at Port Jervis.

It is said that when the Canada Atlantic Ry. is taken over by the G.T.R., on Sept. 1

or thereabouts, E. J. Chamberlin, General Manager, will retire to go into contracting business; that M. Donaldson, now General Superintendent of the C.A.R., will remain as Superintendent of the Canada Atlantic Division of the G.T.R., and that W. P. Hinton, General Freight and Passenger Agent of the C.A.R. will go into the G.T.R. service at Montreal.

Thos. Ridout, civil engineer, and for many years connected with the Department of Railways and Canals, died at Ottawa, July 3, aged 75. He was the oldest native born Torontonian, and was educated at the Upper Canada College, and in London, Eng. He was engaged in engineering work on the Hamilton and Toronto Ry., the Port Hope, Beaverton and Lindsay Ry., the Wellington, Grey and Bruce Ry., and the Prince Edward Island Ry.

G. L. Courtney, who has been appointed District Freight and Passenger Agent, C.P.R., Victoria, B.C., was born at Chatham, Ont., Oct., 1868. He entered railway service in 1885, since which he has been consecutively to 1890, clerk G.T.R.; Aug., 1890, to Aug., 1898, with C.P.R., successively as clerk, travelling passenger agent, contracting freight agent and agent at Victoria, B.C.; Aug., 1898, to June 30, 1905, Traffic Manager Esquimalt and Nanaimo Ry., now owned by the C.P.R.

J. F. Stevens, who has been appointed Chief Engineer of the Panama Canal, by the U.S. Government, was assistant and Division Engineer on the C.P.R. between 1882 and 1886, and in that capacity was engaged on location and construction work west of Winnipeg, Man., mainly in the Rocky Mountains. From 1887 to 1889 he was principal assistant engineer on the Duluth, South Shore and Atlantic Ry., and then became connected with the Great Northern Ry., U.S.

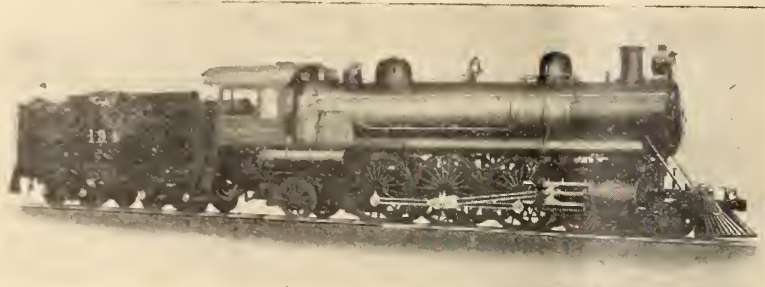
A. Onderdonk, General Manager of the New York Tunnel Co., which is constructing the tunnel under the East River at South Ferry, New York, died at Oswego, N.Y., recently. Between 1880 and 1885 he had contracts covering about 400 miles of the C.P.R., mainly in British Columbia. Among other contracts in which he was engaged in Canada were the following: the Victoria bridge, Montreal; the Toronto, Hamilton and Buffalo tunnel at Hamilton, Ont.; the Soulanges canal, and the Trent Valley canal.

John Bell, K.C., first solicitor, and for the past few months Chief Consulting Counsel of the G.T.R., died at Belleville, Ont., July 5, aged 84. Born at Strabane, Tyrone county, Ireland, July 10, 1822, he came to Canada with his parents when ten years of age. He was educated at Victoria University, studied law in Toronto, and commenced practising at Belleville in 1849. He was appointed solicitor to the G.T.R. in 1852, and retained the position until a few months ago, when he was made Chief Consulting Counsel. Mrs. Bell died a couple of months ago.

The Illinois Central Rd.'s management has made several changes in its traffic department. T. J. Hudson, heretofore Traffic Manager, has been appointed General Traffic Manager, the office of Traffic Manager being abolished. F. B. Bowes, heretofore Assistant Traffic Manager, has been appointed Freight Traffic Manager, the office of Assistant Traffic Manager being abolished. A. H. Hanson, heretofore General Passenger Agent, has been appointed Passenger Traffic Manager. S. G. Hatch, heretofore Assistant General Passenger Agent, has been appointed General Passenger Agent.

A. C. Lytle, General Superintendent Orford Mountain Ry., accompanied by his son, was driving along the extension of the line between Kingsbury and Windsor Mills, Que., July 18, carrying with them about \$14,000 to pay out

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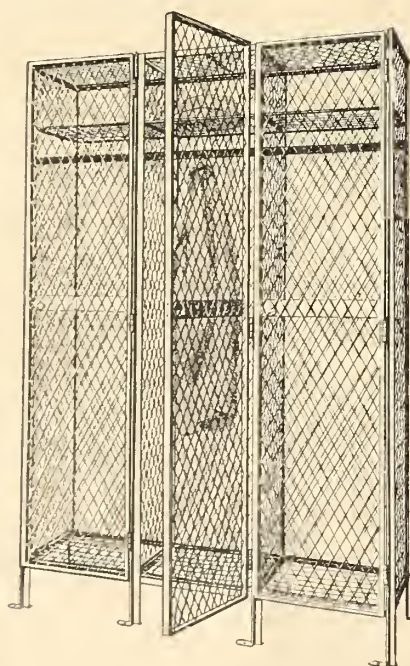
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Lv. Montreal	*9.00 a.m.	*7.45 p.m.
Arr. Lowell	*7.29 p.m.	*6.37 a.m.
" Worcester	*9.04 "	*9.19 "
" Boston	*8.15 "	*7.30 "

VIA G.T.RY., AND WHITE RIVER JCT.

Lv. Montreal	*9.01 a.m.	*8.40 p.m.
Arr. Lowell	*6.11 p.m.	*7.17 a.m.
" Worcester	*9.04 "	*9.19 "
" Boston	*6.55 "	*8.05 "

VIA G.T.RY., WEST SHORE & ROTTERDAM

Lv. Toronto	*4.10 p.m.
" Niagara Falls	*6.15 "
" Buffalo	*4.30 a.m. *7.20 "
Arr. North Adams	*1.05 p.m. *5.08 a.m.
" Worcester	*4.55 " *8.59 "
" Boston	*5.20 " *9.50 "

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Arr. Portland	*7.45 p.m.	*8.05 a.m.
" Old Orchard	*8.16 "	*8.42 "

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to the construction gangs, when they were attacked by highwaymen with shot guns. The horse was shot dead, and Mr. Lytle and his son jumped from the vehicle with the money bags and ran to the bush. Several shots were fired after them, Mr. Lytle receiving wounds in his arms, back and legs, and shots also struck the money bag he was carrying. The firing attracted attention, and by the time some men from a construction gang reached the place the would-be robbers had got away. Mr. Lytle was subsequently attended to at Richmond, Que., hospital, and later at Montreal.

The Canadian American, Chicago, Ill., recently published the following:—"T. B. Hawson, who several years ago was auditor of the G.T.R., and who recently moved from Chicago to New York, was a few days ago taken to Bellevue Hospital, apparently suffering with some form of dementia. A few days ago he went to the Broadway Pressrooms and had struck off 20,000 advertisements which stated that meals would be served at 225 W. 66th Street, at 147 meals for \$1. Later he stated that as his place at 225 W. 66th Street was not ready, meals would be served at 165 W. 66th Street, which happened to be the store of a butcher. A mob surrounded the place, and it took a strong effort on the part of the police to subdue it. Finally, by dint of questioning, the reason for the clamorous mob's existence was traced to its source, and Policeman Rehan made a call upon Mr. Hawson at his residence, and strolled with him to the West Side Court."

B. B. Kelliher, who has been appointed Chief Engineer of the Grand Trunk Pacific Ry., is a native of Ireland, and was educated at Trinity College, Dublin. After practicing as a civil engineer for a year in Ireland, he went to the United States in 1887, since which, to Jan., 1904, he was engaged in railway work there, with the exception of three months spent in Mexico. Among the positions he filled was that of Resident Engineer on a division of the Northern Pacific Ry., during the time J. R. Stephens, who afterwards had charge of the G. T. Pacific Ry. surveys, was Principal Assistant Engineer, and prior to coming to Canada he was engaged on the Denver, Northwestern Pacific Ry. He was engaged in Canada as Division Engineer for the G. T. Pacific Ry., at Winnipeg. In the evidence given by him before the Royal Commission June 9, 1904, he stated that he had not taken out naturalization papers in the U. S., and that he had not found it necessary to do so.

Major V. Sankey, in charge of a party on the Transcontinental Ry. surveys from Kenora, Ont., with two members of his staff were drowned in Manitou Lake, Ont., owing to the upsetting of their canoe July 10. Only one member of the party reached land, viz., Temple, of Brandon, Man., who paddled the canoe back to camp, five miles, with the branch of a tree. The canoe in which the party was crossing the lake was overturned by the heavy wind, and the four occupants succeeded in holding on for about two hours, when first one and then another dropped off, Major Sankey being the last to succumb when 200 yards from the shore and after having been in the water for about three hours. Temple, the survivor, reached camp at eleven o'clock at night with the details of the disaster. The bodies were subsequently recovered, and that of Major Sankey forwarded to Toronto. The funeral with full military honors took place July 20. Prior to his appointment Major Sankey had been for fifteen years city surveyor of Toronto.

Archer Baker, whose portrait appears on the first page of this issue, was born June 21, 1815, at York, Eng., and entered railway service Sept. 24, 1869, since which he has been consecutively to Nov., 1870, clerk to President, Missouri Valley Rd.; Nov., 1870,

to March, 1871, Superintendent's clerk, Brockville and Ottawa Ry.; March, 1871, to July, 1873, Accountant same road and Canada Central Ry.; July, 1873, to Dec., 1876, Secretary and Treasurer same companies; Dec., 1876, to April, 1878, Secretary and Treasurer Brockville and Ottawa Ry.; April to July, 1878, Assistant General Manager same road and Canada Central Ry.; July, 1878, to June, 1881, General Manager Canada Central Ry.; June, 1881, to May, 1885, General Superintendent C.P.R. Eastern Div.; May, 1885, to Aug., 1904, European Traffic Agent, London, Eng., same road; Aug., 1904, to July, 1905, European Traffic Manager; July 1, 1905, European Manager. He is brother to W. R. Baker, Assistant to the President, C.P.R., Montreal.

John Earls, who has retired from the position of Secretary-Treasurer of the Canadian Freight Association, was born in Ireland, Oct. 30, 1838. He entered railway service in 1862 with the G.T.R., since which he has been consecutively to 1863, corresponding clerk at Toronto; 1863 to 1866, clerk at Sarnia, Ont.; 1866 to 1868, corresponding clerk at Portland, Me.; 1868 to 1871, cashier and accountant freight and steamship department, same place; 1871 to 1872, chief clerk General Freight Agent's office, at Toronto; 1872 to 1875, chief clerk General Freight Agent's office, at Montreal; 1875 to 1877, Assistant General Freight Agent Eastern Division; 1877 to 1884, Assistant General Freight Agent Western Division; 1884 to 1892, District Freight Agent Northern and Northwestern Districts; 1892 to 1896, District Freight Agent Western Division, at Hamilton, Ont., entire service with the G.T.R. In 1896 he was appointed Secretary and Treasurer Canadian Freight Association, and was subsequently also chairman of its committees and Manager of its car service department.

D. MacPherson, who has been appointed Assistant Chief Engineer to the Commissioners of the Transcontinental Ry., was born at Bath, Ont., Feb. 2, 1858. He entered the employ of the Canada Central Ry. in Nov., 1880, as a rodman on the surveys of the extension west of Pembroke. In Feb., 1881, on the incorporation of the C.P.R., the Canada Central Ry. was taken over by the former company, and he continued on its staff. In May, 1881, he was sent to Mattawa, Ont., as a rodman on revision of location and construction. Between that time and Aug., 1882, he went through the grades of rodman, leveller, transitman and engineer in charge of section of final location and construction. In Aug., 1882, he became Assistant Engineer of about 400 miles of line, then constituting the Eastern Division. In 1886 or thereabouts he was appointed Division Engineer in charge of maintenance of way, track, bridges, buildings, etc., Eastern Division, and construction of branch lines, which he remained in charge of until his present appointment. From the time he took charge of the Eastern Division until the present time, the Division has grown from 400 to 1,500 miles. He graduated from the Royal Military College, Kingston, Ont., in 1880, being first in the class of engineering, and was a graduate of the first class that came out of this College.

W. Jessop died July 4, at his country estate, Thornsett Lodge, Bradfield, Eng., after a long illness. He was born in Oct., 1856, and was educated at Repton, Germany, and at Cambridge. At the time of his death, and since 1887, he was Chairman of William Jessop & Sons, Ltd., steel manufacturers, of Sheffield, and was the head of the fourth generation of the Jessop family in control of the firm—the business having been established in 1774. He was also President of the Jessop Steel Co., of Washington, Pa., President of the Jessop Hospital for Women, an institution founded by his father, the late Thos. Jessop,

to which he contributed over \$200,000, and which was zealously and liberally supported by his son. He was also a trustee of the Sheffield Royal Infirmary, and a member of the Bradfield Game Association, controlling shooting rights over a large area of moors in the Bradfield district, and was formerly a Director in the Sheffield & Rotherham Bank and the Yorkshire Engine Co. He was a large land owner, and worked an estate of 4,000 acres at Huggat, in the northeast of England, and also an estate at Fosdick, and was keenly interested in agricultural pursuits and an ardent sportsman. He was noted for his kindness and generosity to his tenants, and those in need, and made an excellent landlord, and was greatly esteemed by all. He visited Australia, Japan, Canada and the United States in 1903.

M. J. Butler, who has been appointed Deputy Minister of Railways and Canals, was born at Deseronto, Ont., Nov. 19, 1856, and was educated at the De La Salle Institute, and University College, Toronto, and entered railway service in 1879 as transitman on location of the Renfrew extension Kingston and Pembroke Ry., and was engaged in various capacities to 1882, since which his record has been: 1882 to 1883, engineer in charge of construction Thousand Islands Ry.; 1883 to 1886, Chief Engineer Napance, Tamworth and Quebec Ry.; 1887 to 1889, Assistant Engineer Acheson, Topeka and Santa Fe Ry., on building and water service in Colorado and Kansas; 1889 to 1891, Chief Engineer and Superintendent Teniscouata Wood Pulp Factory; 1891 to 1900, Chief Engineer Bay of Quinte Ry., Thousand Islands Ry., and Oshawa Ry. During his connection with the Rathbun Company's lines he designed and constructed the cement works, water-works and sewerage system at Deseronto; he was subsequently engineer in charge of the construction of the bridge over the Hillsboro River at Charleottetown, P.E.I., and latterly designed and supervised the erection of the works of the Locomotive and Machine Co., of Montreal, of which he was Chief Engineer to Sept., 1904, when he was appointed Assistant Chief Engineer of the Transcontinental Railway Commission, which he relinquished to take up his present position. He is an LL.B., and an attorney-at-law of the State of Illinois.

Car Service Bureau.—The car inspection service, which for a number of years has been carried on by the Canadian Freight Association, will in the near future be placed under the control of the operating departments of the various railways, and a committee comprised of G. S. Cantlie, Supt. Car Service G.T.R.; M. C. Sturtevant, Car Service Agent G.T.R., and J. B. Morford, Asst. to the General Manager, Michigan Central Rd., have made the preliminary arrangements. At the time of writing (July 25) we understand that a meeting will be held in Montreal, July 27, to consider the report of this committee, to appoint an executive committee for the management of the new bureau, and to formulate a code of car service rules in accordance with the requirements of the Railway Commission. It is understood that J. E. Duval, Chief Inspector of the Board of Railway Commissioners, will resign that position and that he will be appointed Manager of the new bureau.

The Canadian Fairbanks Co., Ltd., has been authorized to increase its capital stock from \$500,000 to \$650,000.

The session of the Dominion Parliament closed July 20, an unusual feature being that no railway subsidies were asked for by the Government.

The Minister of Railways stated in the House of Commons July 13, that a bill to provide for the granting of pensions to employees of the Intercolonial Ry., would probably be brought before Parliament next session.

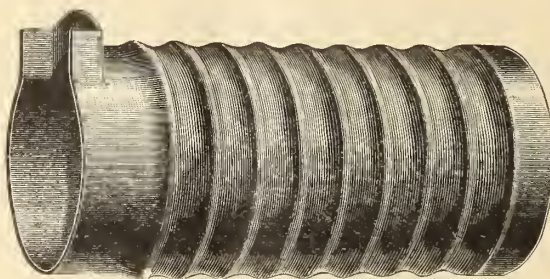
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TRANSPORTATION APPOINTMENTS.

Canadian Pacific Ry. Archer Baker, heretofore European Traffic Manager, has been appointed European Manager with general supervision of the company's business affairs (other than financial negotiations) in Great Britain and on the Continent under the direction of the President and Vice-President. With reference to all matters of a strictly departmental character, officers in the territory of the European Manager will report to their respective chiefs as heretofore, but they will frequently consult with the European Manager and keep him fully informed about everything affecting the territory in his charge.

Harry Moody, Deputy Secretary in London, retired from active service on July 1, after 22 years of most faithful and intelligent attention to the affairs of the company that came within his province. The directors regret that owing to the state of his health he has found it necessary to relinquish the more onerous duties of Deputy Secretary, and it has been arranged that he shall remain connected with the company unofficially so that his services will be available if and when required.

R. D. Morrison, heretofore in the office of the Deputy Secretary, has been appointed Deputy Secretary of the company in London, Eng.

E. F. Tremayne, heretofore in the office of the Deputy Secretary, has been appointed Registrar of the company in London, Eng.

The offices of the European Manager, Deputy Secretary and Registrar are in the C.P.R. building, 62-65 Charing Cross, London, S.W., Eng.

D. MacPherson, Division Engineer, Eastern Division, Montreal, has resigned on his appointment as Assistant Chief Engineer, Transcontinental Ry. Commission.

H. B. Lake is reported to have been appointed Water Analyst of the C.P.R. Western lines, succeeding the late E. B. Kenrick. Office, Winnipeg.

C. E. Blaney, City Passenger Agent at Vancouver, B.C., was for a time acting as train ticket exchanger there, during which period his other duties were discharged by — Scarlett. Mr. Blaney having resumed his duties, — Scarlett has been transferred to the office of H. B. Dunn, C.P.R. agent at Skagway, Alaska.

G. L. Courtney, heretofore Traffic Manager of the Esquimalt and Nanaimo Ry., which has been acquired by the C.P.R., has been appointed District Freight and Passenger Agent for the C.P.R. at Victoria, B.C. He will report to the Assistant General Passenger Agent and to the General Freight Agent, Vancouver.

Department of Railways and Canals. It is semi-officially announced at Ottawa, that Collingwood Schreiber, C.M.G., who has been Deputy Minister of Railways and Canals since 1892, will be appointed Consulting Engineer to the Department, and it is stated that he will take up his new duties Aug 1, when M. J. Butler, C.E., will be appointed Deputy Minister. These appointments had not been gazetted up to the time of writing. (July 26.) It is said that Mr. Schreiber will be especially consulted by the Minister in regard to the choice of terminals and location of the G. T. Pacific Ry.

Esquimalt and Nanaimo Ry. Jos. Hunter, heretofore Chief Engineer and General Superintendent; J. E. Lindsay, heretofore Auditor, and J. Fowler, heretofore Master Mechanic, of the E. and N. Ry., which has been transferred to the C.P.R., will remain with the Dunsmuir interests, and have entered the service of the Wellington Colliery Co., of which Jas. Dunsmuir is President.

H. K. Prior, heretofore Purchasing Agent, and I. S. Floyd, heretofore Accountant, E.

and N. Ry., have left the service and will engage in private business.

The line will be operated as a sub-division of District 2, Pacific Division, C.P.R., as soon as some formalities in connection with the transfer are completed. In the meantime it is being operated as a separate branch line with the following officials:—

H. E. Beasley, heretofore Superintendent, C.P.R., Vancouver, has also been appointed Superintendent E. and N. Ry., his office remaining at Vancouver.

Jno. Goodfellow, heretofore Trainmaster and Chief Dispatcher, C.P.R., at Vancouver, has been appointed Assistant Superintendent E. and N. Ry., with office at Victoria.

All employees in the service of the E. and N. Ry. will report to and take instructions from the Assistant Superintendent, except those engaged on steamboats and barges, who will report to and take instructions from Capt. J. W. Troup, General Superintendent B.C. Coast Service, Victoria.

G. L. Courtney, heretofore Traffic Manager, has been appointed District Freight and Passenger Agent at Victoria. (See also C.P.R. appointments).

S. Phipps, Master Mechanic Pacific Division, C.P.R., at Revelstoke, B.C., has had his jurisdiction extended over the E. and N. Ry.

R. Bowman, C.P.R. Storekeeper, Vancouver, B.C., has also been appointed Storekeeper E. and N. Ry., his office remaining at Vancouver.

W. Newman, heretofore C.P.R. Roadmaster at Revelstoke, B.C., has been appointed Roadmaster E. and N. Ry., at Victoria.

F. Brown is the Train Dispatcher E. and N. Ry.

Grand Trunk Ry.—G. Barnes, soliciting freight agent at Toronto, has resigned to become travelling freight agent for the Wisconsin Central Rd., for Ontario and Michigan, with headquarters at Detroit, Mich.

Grand Trunk Pacific Ry.—A press report that D. O'Brien, of the G.T.R. mechanical department at Montreal, had been appointed assistant to the Vice-President and General Manager, is said to be without foundation. The report stated that the new official would have his headquarters at Winnipeg, and would have charge of the construction of the new line in the West, and maintain a general supervision over the affairs of the company in that part of Canada.

B. B. Kelliher, heretofore Division Engineer at Winnipeg, has been appointed Chief Engineer. Office, Montreal.

H. A. Woods, who was acting for the company in the preparation of the specifications for the Eastern Division by the Transcontinental Ry. Commissioners, has been appointed Assistant Chief Engineer. Office, Montreal.

E. R. McNeill, heretofore District Engineer at Edmonton, Alta., has been appointed Division Engineer at Winnipeg, succeeding B. B. Kelliher, promoted.

W. E. Mann, heretofore Assistant Engineer has been appointed District Engineer at Winnipeg.

Jno. Armstrong, heretofore Assistant Engineer at Edmonton, Alta., has been appointed District Engineer there, succeeding E. R. McNeill, promoted.

Intercolonial Ry. F. H. Moore is reported to have been appointed Locomotive Inspector. Office, Moncton, N.B.

Michigan Central Rd.—G. H. Webb, heretofore Assistant Chief Engineer, has been appointed Chief Engineer, succeeding W. S. Kiuneur, who resigned that portion of his duties to devote his entire time to the position of Assistant General Manager, with charge of the work of tunnel construction under the Detroit River. R. D. Starbuck has been appointed Assistant Chief Engineer.

The Pere Marquette Rd.—The following re-arrangement of superintendents' territory has

been made: Chicago terminals, H. O. Halsted, Superintendent Chicago, Ill., Chicago to

Porter.
Grand Rapids District, P. N. Place, Superintendent, Grand Rapids, Mich., Chicago Division and branches, LaCrosse division, Muskegon division, Petoskey division and branches, Big Rapids division; D. E. McVean, Train Master, Grand Rapids, Mich.; B. Gavet, Train Master, Traverse City, Mich.

Saginaw District, A. R. Merrick, Superintendent, Saginaw, Mich., Toledo division and branches, Bay City division; Saginaw belt and terminals, and S.T. & H.R.R. division; J. L. Hayes, Train Master, Saginaw, Mich. Ludington division and branches, Port Huron division, Port Austin divisions and branches; J. A. Anderson, Train Master, Saginaw, Mich. Saginaw division, Ionia division, north of Ionia, and branches; M. J. Griffin, Train Master, Ionia, Mich.

Detroit District, J. S. Pyeatt, Superintendent, Detroit, Mich., Grand Rapids division, Grand Rapids to Detroit, Ionia division, Grand Ledge to Ionia; E. E. Cain, Train Master, Detroit, Mich., Buffalo division, J. R. Gillhula, Train Master, St. Thomas, Ont. It will be observed that the headquarters of Messrs. Pyeatt and Cain are removed from St. Thomas, Ont., to Detroit, Mich. J. R. Gillhula was formerly Chief Dispatcher at St. Thomas.

G. W. Groom, heretofore train dispatcher at St. Thomas, Ont., has been appointed Chief Train Dispatcher, Buffalo Division, vice J. R. Gillhula, promoted.

Transcontinental Ry. Commission.—S. N. Parent, ex Premier of Quebec, has been appointed Chairman of the Commission, to succeed the late F. B. Wade. In an interview in Montreal he stated that after taking a short holiday he would go to Montreal and take up his duties, and that he would resign as Mayor of Quebec and as a member of the Quebec Legislative Assembly.

It is also announced that C. F. McIsaac, M.P. for Antigonish, N.S., has been appointed a Commissioner. Press reports stated that A. Brunet, one of the commissioners was about to resign to make way for Mr. Parent, but his resignation has not been announced.

D. MacPherson, heretofore Division Engineer, C.P.R. Eastern division, Montreal, has been appointed Assistant Chief Engineer, succeeding M. J. Butler, who becomes Deputy Minister of Railways and Canals.

In the article on Railway Employees' Claims for Accidents, on pgs. 291-293 of our last issue, it was stated that the judgment of the Supreme Court upheld the competency of Parliament to pass Sec. 1, Chap. 31, of the Statutes of 1904, and declared it to be ultra vires. It should have read intra vires.

PROFESSIONAL CARDS.

THE RAILWAY AND SHIPPING WORLD is especially adapted for the publication of professional cards of engineers, inspectors, analysts, electrical experts, naval, grain elevator and other architects, solicitors, etc. who desire to bring themselves under the notice of the managements and officials of the various steam and electric railway, steamship, grain elevator, telegraph, telephone and power companies throughout Canada, as well as the locomotive, car and ship builders, contractors and promoters of railway enterprises. THE RAILWAY AND SHIPPING WORLD is the only one medium through which all these important classes can be reached.

Rates will be quoted on application.

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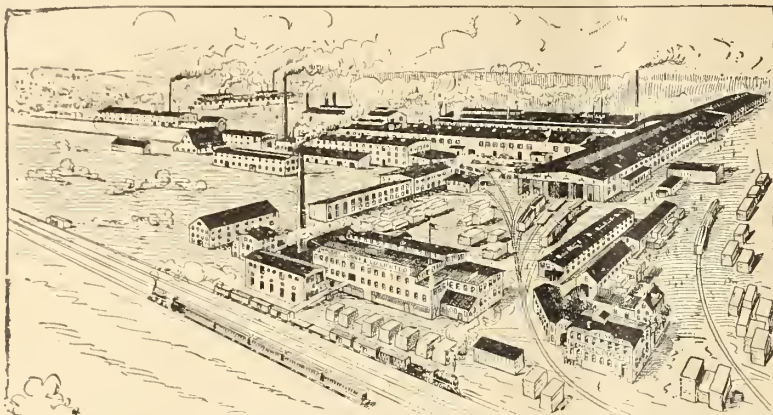
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A FEW POINTERS

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There are districts that have been settled for many years in which land can be purchased. Some of this may be unbroken prairie which still possesses all the richness and productive powers of our virgin prairies. Other lands, cultivated and having comfortable farm buildings, are ready for immediate possession.

There are Provincial Government lands, Dominion Government homesteads, and railway lands to be secured.

The price of land varies from \$3 to \$40 per acre. Location with respect to railways, towns, timber and water determines the price of land.

For information regarding homesteads, apply at the Dominion Land Office.

For purchase of Provincial lands apply at the Provincial Land Office in the Parliament Buildings.

For C.P.R. or C.N.R. lands apply at the land offices of said railway companies.

For lands owned by private individuals apply to the various real estate agents in the city.

For situations as farm laborers apply to :

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which is not only in the

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of New York, but is also in the center
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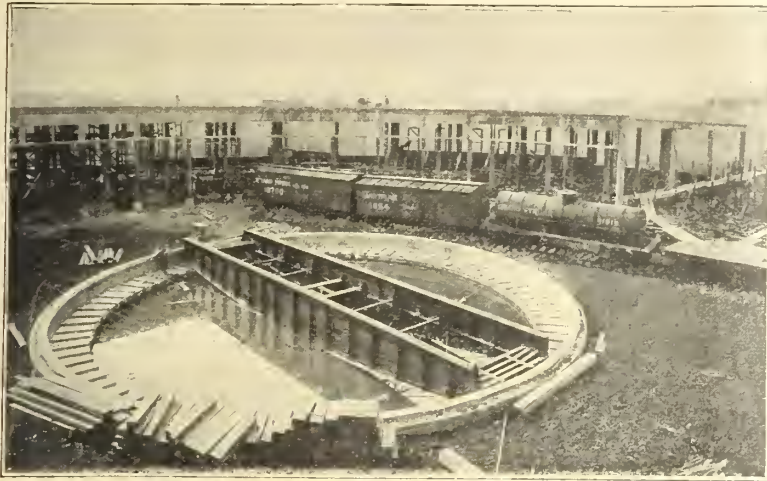
A fact to remember is that the NEW
YORK CENTRAL is the only
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G.T.R. Betterments, Construction, Etc.

Point St. Charles Shops.—The negotiations respecting the fixing of taxation on the company's property at this point, has been practically agreed to on a basis of \$1,000,000 for a period of 20 years. The company is arranging for extensive improvements and additions to the shops, and desired to



SHOWING G.T.R. ROUND HOUSE AT MIMICO, ONT., IN PROCESS OF CONSTRUCTION.

have the assessment fixed before the work was commenced.

Mimico Round House, etc.—The round house and machine shop recently built at Mimico, near Toronto, contains 30 stalls, each 13 ft. wide at the inner circle, and 26 ft. at the outer circle. Each stall is 82 ft. long, divided into three sections, and carried on four columns. The entire structure is built of concrete, reinforced with Kahn trussed bars. The interior columns are 14 in. square, and contain each four $\frac{1}{2}$ x $1\frac{1}{2}$ in. trussed bars. The diagonals of these steel members are bent horizontal in order to obtain the effect of hooping. Angle guards were placed in all corners in order to prevent chipping. The columns in the outer circle are T shape, forming a pilaster on the outside, and at the same time supplying recesses for keeping the curtain walls between columns. The joints at these points allow for expansion and contraction. In designing the columns in the interior circle, it was feared that locomotives striking the outside doors would break the concrete columns which carried the doors. For this reason these columns were made of three channels filled with concrete, and anchored to same. This construction was decided upon, as it is contended that such a column would not break, but would merely shift off its foundation if struck by a locomotive. Doors were fastened directly to these channels. On the side not containing a channel, were placed $\frac{1}{2}$ x $1\frac{1}{2}$ in. trussed bars as a reinforcement. Radial lines of reinforced concrete girders were placed between columns at a height of about 20 ft. 5 in. from top at the outer circle, and 24 ft. 2 in. at the inner circle. Seven longitudinal rows of reinforced concrete beams were spanned between the girders and columns. Both beams and girders were reinforced with Kahn trussed bars in the bottom, and over the supports they were invariably made continuous with inverted bars. Each beam contains in the bottom at least two bars full length and one bar about two-thirds the length at the bottom in the centre and raised at the ends. Between the beams and girders is spanned a 4 in. concrete slab, which is reinforced in both directions, and made continuous over the entire area. Especial attention was paid towards obtaining an absolute monolithic character in the entire structure,

so that if an excessive load were placed upon any one portion the same would be distributed over the adjoining panels. Anchors for carrying steam pipes and controlling individual smoke stacks over locomotives were placed in the concrete while the same was green. The machine shop roof is constructed similarly to the round house, using a series of beams about 12 ft. o.c., spanned with a 4 in. concrete slab. These are also reinforced with Kahn trussed bars. The illustrations on this page show the method of construction.

Guelph Improvements.

—The Guelph, Ont., City Council had before it July 4 the decision of the Board of Railway Commissioners to allow the G.T.R. to expropriate Jubilee Park for station extension purposes. The formal order has not been issued, but the decision is causing considerable comment in the city. It is said to be likely that a joint station will be built for the use of the G.T.R. and the C.P.R.

Paris Station.—Negotiations are in progress with the Town Council for the erection of a new station at Paris, Ont., at a point nearer the town than the present one.

Brantford Station and Improvements.—The new station was completed and occupied early in July, and the removal of the old building was expected to be completed by the end of the month.

After further discussion a new agreement has been made between the Brantford, Ont., City Council, and the G.T.R., respecting improvements at that point. The new agreement was reached July 11, and the necessary papers are being prepared. Under the agreement the company will construct subways under Niagara and Albion streets, an overhead crossing of the Paris road, lay a switch to Holmedale district if a right of way can be secured, and a spur line is to be constructed from the company's Tillsonburg line to the factory district.

Battle Creek to Jackson.

—We were advised July 15 that there was no truth in the press reports that the G.T.R. was about to extend its line from Battle Creek to Jackson, Mich.

C.P.R. Betterments, Construction, Etc.

St. John to Montreal.—Surveys are being made with a view of reducing gradients on the Eastern and Atlantic Divisions between St. John, N.B., and Montreal.

Toronto-Sudbury Line.—The contract for the construction of the portions of the Toronto-Sudbury branch between Bolton and Coldwater, and between Severn Bridge and Parry Sound has been let to G. S. Deeks & Co., of Toronto, and the section between Coldwater and the Severn River, 12 miles, to Battle, Conlon and Armstrong, of Thorold, Ont. The total distance covered by these contracts is 128 miles. It is expected that the line between Bolton and the Severn River will be in operation by Dec. 1, and the rest of the line into Parry Sound, next summer. It was expected to have the grading between Ronford and Byng Inlet completed by the end of July, but it had not been decided July 10 when track-laying would be commenced. No contracts have been let for the portion of the line between Parry Sound and Byng Inlet, but it is intended to let contracts for this to enable work to be proceeded with in the fall. (July, pg. 307).

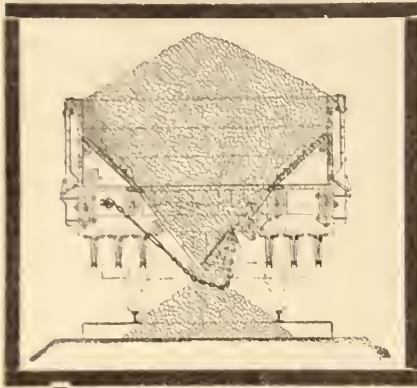
Wahnapitae Improvements.—The rail level of the line in the vicinity of Wahnapitae, Ont., is being raised several feet in connection with the gradient improvement along the line in this division. The station and platform has been raised about 6 ft. to conform to the new level.

Fort William to Winnipeg Second Track.

—The company has decided to proceed at once with the construction of a second track from Fort William to Winnipeg, about 426 miles. Some years ago the work of lengthening sidings and adding new ones was taken in hand, and most of these latter were so constructed that they could be worked in with a second track when such became necessary. Later on some preliminary rock work, etc., in the vicinity of Kenora (Rat Portage), Ont., was taken in hand, the contractors being Foley Bros., Larson & Co., which firm has now secured the contract for the second track construction. A good deal of the work, such as widening existing embankments and train work will be done by the C.P.R. itself, but such work as the widening of existing cuts and the construction of new line where better alignment and easier gradients can be obtained, will be done by the contractors. The heaviest work will be the 60 miles east and the 40 miles west of Kenora. The new



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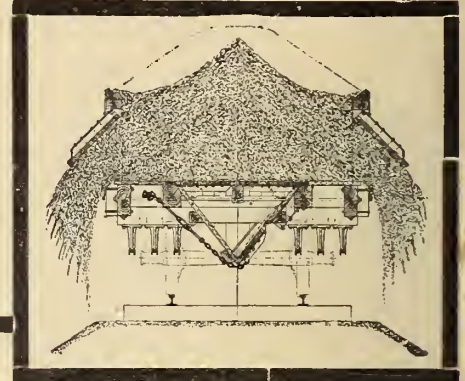
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work will include a cut-off from Molson to the Red River bridge at Winnipeg, which will effect a shortening of the line by about nine miles. The contract calls for the completion of the work within three years. Work, it is said, will be started east and west of Kenora as soon as outfits can be placed on the ground. It is expected to do a good deal of the heavy rock work during next winter. F. F. Busteed, Assistant Chief Engineer, Winnipeg, will have general charge of the work on behalf of the company. (July, pg. 307).

Winnipeg Freight Sheds.—A contract has been let for the erection of freight sheds at Winnipeg to replace those destroyed by fire some months ago. J. and J. Maediarimid, of Winnipeg, have the contract.

Winnipeg Beach Line.—A contract is reported to have been let to J. D. McArthur, Winnipeg, for the extension of the Winnipeg Beach line towards Gimli, Man. It is also likely that the Teulon branch will be extended to Icelandic River.

Niagara Navigation Company.

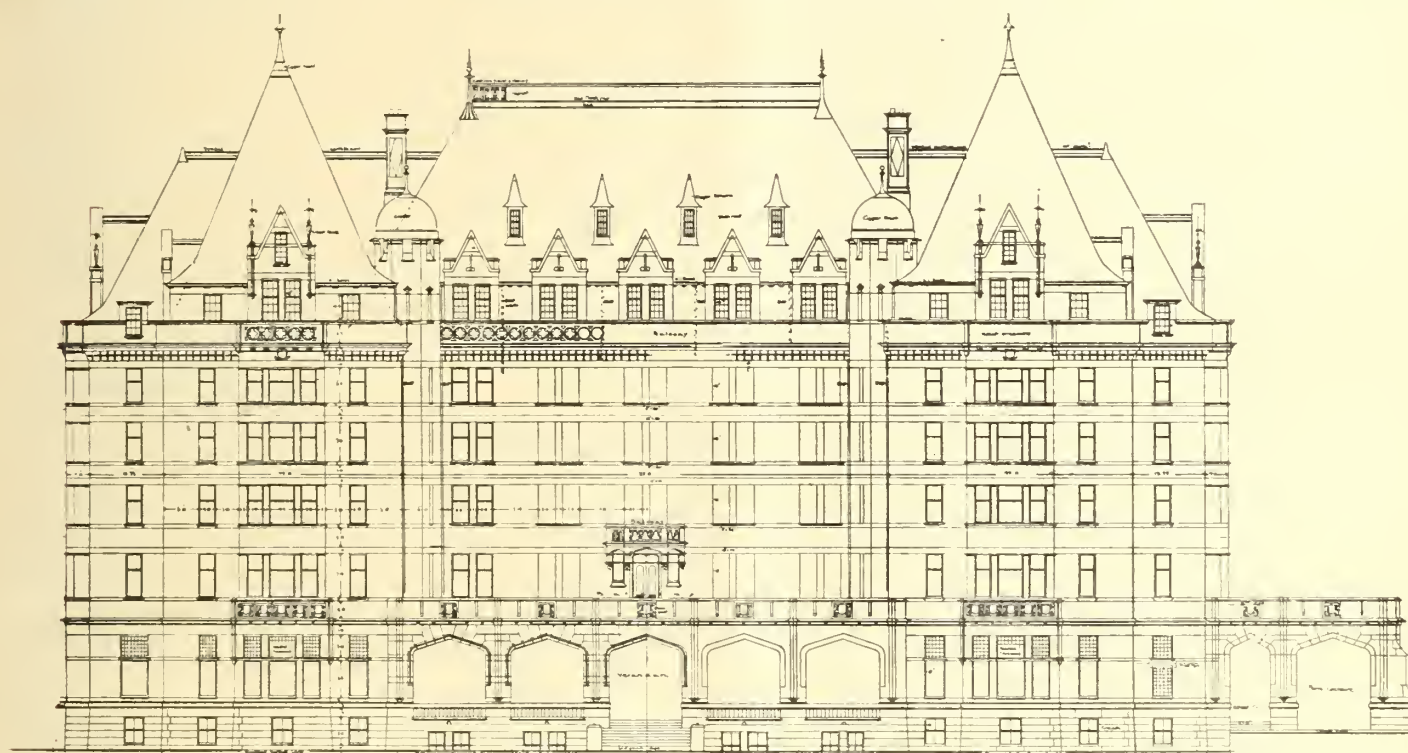
At a special meeting in Toronto, July 21, the shareholders approved of a by-law authorizing the issue of bonds or debentures, as a mortgage on the real and personal property, for not exceeding \$275,000, and at not more than 5% interest. The present debenture debt is \$111,000, out of an authorized issue of \$115,000, bearing interest at 4½%, which is to be retired out of the proceeds of the new issue, the balance to be used in part payment for the steamboat which the company has ordered to be built by the Canadian Ship-building Co.

The directors had previously also passed a by-law to increase the capital stock issued from \$605,000 to \$705,800, out of an authorized issue of \$1,000,000. This will be done by the issue of 1,008 shares of \$100 each, which will be allotted at par to shareholders of record on Aug. 1, in the proportion of one new share for each six old shares held. Twenty per cent. is to be paid at the time of sub-

Recent Dominion Legislation.

The following acts affecting transportation interests were passed at the recent session of the Dominion Parliament, in addition to those mentioned on pg. 289 of our July issue:

- Respecting the Algoma Central Ry.
- Respecting the Brandon, Saskatchewan and Hudson's Bay Ry.
- Respecting the Canada Central Ry.
- Respecting the Canadian Northern Ry.
- Respecting the Dominion Atlantic Ry.
- Respecting the Edmonton, Yukon and Pacific Ry.
- Incorporating the Fessenden Wireless Telegraph Co. of Canada.
- Respecting the Grand Trunk Pacific Ry.
- Amending the act respecting the arbitration between the King and the G.T.R.
- Amending the Government Railways Act.
- Respecting the Great Northern Ry. of Canada.
- Incorporating the International Bridge and Terminal Co.



CANADIAN PACIFIC RAILWAY CO.'S HOTEL AT VICTORIA B.C.

Now being erected. This view shows the west elevation, facing the sea wall. For description see our June issue, page 241.

Pheasant Hills Branch.—Announcement has been made that the extension of this branch from Lipton to Strassburg, Assa., will be put in operation Aug. 15. The branch in all is 202 miles long, and starts from Kirkella, Man. The present extension is 55 miles in length, the contractors being Foley Bros., Larson & Co. (June, pg. 255).

Moose Jaw Roundhouse.—A 10-stall roundhouse is under construction at Moose Jaw, Assa., as an addition to the existing one.

Car Shop at Calgary.—The C.P.R. has under construction a car shop at Calgary, Alta., to take care of car repair work on the lines in that part of the country. This is necessitated by the growth of that line of work in the West.

Electricity for the Boundary District.—Press reports state that the C.P.R. has under consideration the advisability of adopting electrical power for the movement of trains in the Boundary district of British Columbia. We understand that at present it is only an idea, and may not be at all feasible.

scription, and the balance in eight monthly payments of 10% each.

In answer to questions by shareholders, the President, E. B. Osler, stated that the new steamboat would cost about \$275,000. The directors had given very careful attention to the question of turbine propulsion, and has sent the Manager, B. W. Folger, to Great Britain to look into it and other matters, and they had come to the conclusion that it had not been proved to be a commercial success, nor could they get a builder to give the desired guarantee. They had, therefore, decided on a twin screw steamer, with a guaranteed speed of 22½ miles an hour.

The Dominion Bridge Co., Montreal, is reported to have decided to erect a plant at Winnipeg, and to be negotiating for a site.

A syndicate, of which E. B. Osler, M.P., C. R. Hosmer, and W. D. Matthews, directors of the C.P.R., are members, recently purchased the Gooderham-Blackstock interests in the War Eagle, Central Star, and St. Eugene mines near Rossland, B.C.

Respecting the Interprovincial and James Bay Ry.

Respecting the James Bay Ry.

Respecting the Joliette and Lake Manitoba Colonization Ry.

Respecting the Kaslo and Lardo-Duncan Ry.

Respecting the Manitoulin and North Shore Ry.

Respecting the powers of the Harbor Commissioners of Montreal.

Respecting the Northwest Coal and Coke Ry. Co., and changing its name to the Great West Ry. Co.

Incorporating the Northwest Telephone and Telegraph Co.

Respecting the Ontario, Hudson's Bay and Western Ry.

Respecting the Ottawa and New York Ry.

Respecting the Ottawa Electric Co.

Respecting Quebec port and pilotage district.

Respecting the South Shore Ry. and the Quebec Southern Ry.

Respecting the St. Maurice Valley Ry.

Amending the Seamen's Act.

NIAGARA RIVER LINE

THE NIAGARA-TORONTO ROUTE

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BUFFALO, NIAGARA FALLS, TORONTO

Via The Lower Niagara River and Lake Ontario

CONNECTIONS AT

Lewiston with New York Central and Hudson River R.R. and Great Gorge Road (Electric).

Queenston with International R.R. Co. (Electric).

Niagara-on-the-Lake with Michigan Central R.R.

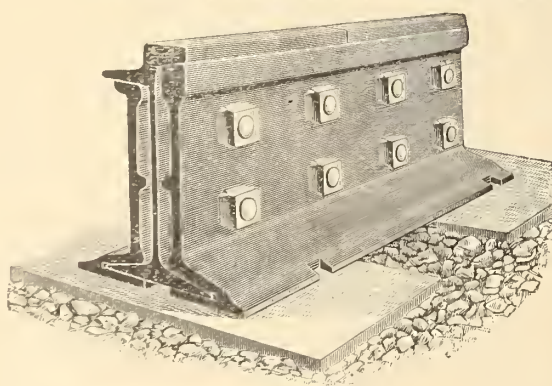
Toronto, from same wharf, with R. & O. N. Co.'s steamers for Thousand Islands, Montreal, etc., and the Canadian Pacific and Grand Trunk Railroads for all points in Canada.

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Railroad Essentials.



The day has passed when men of finance are willing to place their money into bad material in railroad construction only to be compelled to replace it by renewals or reconstruction after very little use. Many of the best and most successful steam and electric railroads use the rail joints of the Continuous patent type for standard track work, insulated joints, step joints, and electric bonding joints for the reason that experience has proven it to be the best appliance of its kind ever put upon the market, as evidenced by the fact that it is used in all parts of the world on over 20,000 miles of track.

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To all Points on
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For Sault Ste. Marie and North Channel way ports Steamers leave Collingwood 1.30 p.m., Meaford 4 p.m., Owen Sound 11 p.m., Tuesdays, Thursdays and Saturdays.

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For Sault Ste. Marie, Port Arthur, Fort William and Duluth Steamers leave Sarnia Mondays, Wednesdays and Fridays at 3.30 p.m.

Through tickets, and freight rates at all Railway Agents.

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Collingwood

C. H. NICHOLSON - Traffic Mgr.
Sarnia

Ticket
Agts.



Note

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Chicago to Hot Springs, Ark., St. Louis, Omaha, St. Paul and Minneapolis, Memphis, Tenn., New Orleans, San Antonio, Texas, and all California

in Special Excursion Pullman Cars. Round Trip Tickets to all South and South west points daily, same to California. Rate same via New Orleans as other direct routes. First and third Tuesdays each month.

Special First-class Round Trip Tickets at one fare plus \$2.00 from Chicago to Home-seekers in South and South-west.

Look The Illinois Central map over and consult

G. B. WYLLIE,

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210 ELLICOTT SQUARE, BUFFALO, N.Y.

The Victoria Rolling Stock Co. of Ontario, Limited

NOTICE is hereby given that a dividend of six per cent. on the paid up capital stock of the company for the half year ended May 31st, 1905, has been declared payable June 1st, 1905, to shareholders on record as of the 31st of May, 1904.

By order of the Board.

R. A. SMITH,

Secretary.

Toronto, May 18th, 1905.

Incorporating the Electric Ry. Co. of Trois Rivières, St. Maurice, Maskinonge and Champlain.

Respecting the Vancouver and Coast-Kootenay Ry.

Respecting the Vancouver, Victoria and Eastern Ry. and Navigation Co.

Providing for the regulation of wireless telegraphy in Canada.

Respecting the Yukon Western Ry.

Wellington, Grey and Bruce Ry.—An announcement made in London, Eng., is to the effect that the estimated earnings of the railway for the half-year to June 30, applicable to meet interest on the bonds, will admit of the payment of £2 8s. 11d. per £100 bond, and that this payment will be applied as follows:—£1 17s. 2d. in final discharge of coupon 46, due July 1, 1893, and 11s. 9d. on account of coupon 47, due Jan. 1, 1904.

We were advised July 19, that no decision had been reached by the Department of Railways and Canals respecting the construction of a railway siding to connect with the elevator, for which the foundations are already being put in, at Port Colborne, Ont.

The hull of the burned str. City of Collingwood was sold by the underwriters to F. W. Doty, Goderich, Ont.; J. R. Sinclair, Toronto, and another party, for \$3,500. The steamer was insured for \$80,000 through Prinderville & Co., underwriters, Chicago.

The Bridgeburg, Ont., village council has raised the G.T.R. assessment from \$495,125 to \$1,275,856. The principal increase is on the International Bridge which has been raised from \$175,000 to \$650,000. The G.T.R. has appealed against the assessment.

The Dominion Express Co. has opened a route on the Esquimalt and Nanaimo Ry., between Victoria and Wellington, B.C., and has closed its route on the Vancouver and Lulu Island Ry., leased to the British Columbia Electric Ry., and operated as an electric line.

The Winnipeg Transfer Co., which was recently organized at Winnipeg, was formed for the purpose of taking over the running of busses to and from all hotels, and of handling all baggage to and from the C.P.R. station there. A. M. Nanton controls the company.

Prince Edward Islanders are carrying on a regular campaign for the construction of a tunnel between the island and the mainland. The latest is a stamp for affixing to envelopes showing the island and a tunnel connection with New Brunswick, surrounded by a horse-

shoe in red, with the legend "We must have it," and a scroll with "Good Luck." On the top and bottom of the stamp are the words "Every true islander will work for it."

Secretary de la Hooke is making arrangements for the annual meeting, etc., of the Canadian Ticket Agents' Association. The party will rendezvous in Montreal, leaving there by special train on the morning of Saturday, Oct. 7, for Portland Me., where the annual meeting and dinner will be held on Oct. 9. On the return trip Portland will be left on the morning of Thursday, Oct. 12. The going trip will probably be via G.T.R., returning by the Maine Central, Boston and Maine, and C.P.R.

The plans for the new steamer for the C.P.R. Pacific coast service have not been completed, but the general lines and capacity have been fixed. She will be of wood, 240 ft. over all, 38 ft. beam, 17 ft. depth of hold. She will be propelled by a single screw, driven by engines indicating 1,600 horse power. The cabin accommodation will be arranged in two tiers and will be fitted up with all modern comforts and conveniences. Berth accommodation will be provided for 150 passengers, and the vessel will have room for 1,000 tons of cargo. She will be built on the Pacific coast.

The Dominion Express Co. has opened offices at the following points:—Bankhead, Bellevue, Dubhil, Mitford, Ozada, Sandstone, Stobart (formerly Mewasin), and Temple, Alta.; Beverly (formerly Leven), Cotton, Northcote, Timms, Verdi, Wirth, Assa.; Bayard, Cassiday's, Chemainus, Cobble Hill, Cowichan, Duncans, Esquimalt, Goldstream, Koenigs, Koksilah, Ladysmith, McInnes, Northfield, Shawnigan Lake, Silica (formerly Williams), Somenos, South Wellington, Wardrop, Welchs, Wellington, Westholme, Winlaw, B.C.; Airdale, Dooley, Gunton, Lynch, Penmount, Ward, Man.; Magaguadair, N.B.; Kaministiquia, Melancthon, Nestleton, Ont.; Gould, Masouche (formerly South Masouche), South Breton, Que.

An important judgment was recently given by a board of judges at Guelph, upon an appeal of the G.T.R. and the C.P.R. under the new Assessment Act of Ontario, in regard to the assessment of their lines in the townships of Puslinch, Nichol, Pilkington, Guelph and Eramosa, in Wellington county. The townships assessed the ties, rails and superstructures of the railways at \$10,000 a mile. The judges held that the superstructures were not assessable when used in crossing highways, although it was provided in the act that they were assessable when they occupied the high-

way lengthways. The effect of the judgment reduces the assessment by \$482,000. This is the first case decided by a board of judges as provided for by the new act.

The question of the taxation of the C.P.R. land grants in the Northwest Territories, which have been formed into the two Provinces of Alberta and Saskatchewan, was raised upon the third reading of the bill in the House of Commons. The clause exempting the unpatented C.P.R. lands from taxation is 23, and an attempt was made to add to it a provision that nothing contained in it should prejudice the right of Parliament to obtain by expropriation or otherwise the relinquishment of the company's rights under Section 16 of the contract between the Government and the C.P.R. The Premier in referring to the matter said the Liberal party had done all it could do to prevent granting that exemption, but Parliament had seen fit to act differently, and that being the case, Parliament had to abide loyally by the contract made. The contract could not be broken except by mutual agreement, or by the exercise by Parliament of its power of eminent domain and expropriating the C.P.R. privileges and property. The Dominion were partners with the new Provinces in this matter, and would have to protect themselves as well as the new Provinces. The present situation could not be continued forever, and the time must come when Parliament must address itself to remedy the grievance.

Canadian Freight Association.

The Executive Committee has selected T. Marshall, Division Freight Agent of the Pere Marquette Rd., at London, Ont., as Secretary-Treasurer of the Association, to succeed J. Earls, who has resigned, after nine years' service. The Association, which was started in 1883, has become a very important organization, embracing practically all the railways and nearly all the freight carrying steamship lines in Canada. Since the establishment of the Association, the conditions have undergone a radical change, and from time to time the organization has been changed to adapt it to modern requirements. There are now many more transportation companies than when the Association was started, and consequently more members, more intense competition for freight, and a very considerable growth in the commercial and industrial interests of the country, requiring the closest attention in the framing of uniform rules,

JAS. W. PYKE & COMPANY

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FOR STEAM AND
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**Telephone, Telegraph, Electric Railway
and Power Purposes.**

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THE WIRE AND CABLE COMPANY, - MONTREAL

regulations, classifications and tariffs, in order that the various commercial centres and all industries may be treated equitably and that the requirements of the recent Railway Act may be carried out. The freight officials of the transportation companies have their own individual duties, which usually are heavy enough to require their entire time, and the executive officer of the Association can be of material relief to them and at the same time of great service to the public, in ascertaining and presenting to the Association in a thorough manner the needs of the public as far as the Association can deal with them.

Mr. Earls has also been Manager of the Association's car service department, which is about to be abolished, its work being transferred to the Car Service Bureau, reference to which is made on page 359.

Transcontinental Railway Surveys.

A number of press reports are current in regard to the route and as to the time when work will be started. One report has it that the route from Winnipeg has been laid out, and was to be approved by the Government at the end of July. According to the act, as stated in the commissioners' report, no provision is made for the Government's approval of the route. The reference of the plans to the Minister of Railways, mentioned in the report, was a courtesy only, and his approval is apparently an unnecessary formality. From the state of the surveys at the end of Feb., it is difficult to imagine that the surveys for the whole route between Moncton and Winnipeg are in such a condition as to say that all the preliminary surveys had been completed, reports made thereon, and a route decided upon. Another reason why it is unlikely that the commissioners have adopted any particular route is, that no successor has been appointed to the chairman, the late F. B. Wade, K.C., and while any two of the commissioners in town are competent to transact business, they would hesitate before deciding on such an important matter, while there was a vacancy on the commission.

Another report declares that the whole eastern section will be abandoned as it has been found that the cost of construction in many parts will be so high that its construction is altogether out of the question. Other reports state that contracts will be asked for within a few weeks, and that construction will be begun in the fall. It is more than doubtful, however, if anything in the way of asking for tenders will be done until the fall, or early

winter, and it is not at all likely that any construction will be undertaken this year.

The commission is having built at Nepigon, Ont., a residence and office building for the District Engineer and his staff. The probable cost of the building will be between \$2,000 and \$3,000.

Grand Trunk Pacific Railway.

F. W. Morse, Vice-President and General Manager, spent some time at the end of June and early in July at Fort William, Ont., and Winnipeg, in connection with the business of the company. He stated, on his return to Montreal, July 4, that work would be commenced on the Lake Superior branch at Fort William, about a month thereafter.

The route of this branch as filed with the Department of Railways by the G.T.P.R. Co., provides for a line about 220 miles long. The surveyed route runs westerly from the terminals at Fort William to Kakabeka Station on the C.P.R., thence parallel with the C.P.R. for 41.3 miles to Linko (formerly Linkoping) station. From this point the route is north-westerly, passing immediately south of Mattawa Lake, and north of Minnetakie Lake to the terminus on the east boundary of Lac Seul Indian Reserve, north of Lost Lake, where connection will be made with the main line of the Transcontinental Ry.

A Winnipeg press despatch of July 13 stated that construction on the western division would be commenced in about a month. The route, it stated, had been definitely located westward to the intersection with the Regina and Prince Albert branch of the C.P.R. (Qu'Appelle, Long Lake and Saskatchewan Ry.), and provisionally to Edmonton. It was further stated that construction would be started in the vicinity of Portage La Prairie, Man., and that the first contracts let would cover 400 miles of grading.

ELECTRIC RAILWAYS.

Projects, Construction and Betterments.

British Columbia Electric Ry.—The electrification of the Vancouver and Lulu Island Ry., under agreement with the C.P.R., was completed by the end of June, and an official trip made over the line June 27. The line was opened for public traffic as an electric railway July 11. (July, pg. 313.)

Edmonton Street Ry.—We have been advised from Edmonton, Alta., that no actual construction work has been done in connec-

tion with the proposed electric railway. A few loads of gravel have been dumped on one of the streets by the company. "There is no visible sign," says our informant, "of the franchise being carried out up to the present time." One of the promoters states that the machinery, material, etc., has been ordered.

Hamilton, Ancaster and Brantford Ry. A statement was made by Senator Kennedy, one of the United States promoters of the company, July 11, that he expected to be in a position to let contracts in about a month. (July, pg. 315).

Hamilton, Caledonia and Lake Erie Ry.—Hamilton, Ont.; papers stated July 1 that the company had commenced active operations on Hannah St. The work, however, is said to be only a formal start in order to hold the charter.

Hamilton, Grimsby and Beamsville Electric Ry.—A special meeting of shareholders was held July 31, for the purpose of considering the reports of Engineer Pierson and Superintendent Waller on the subject of abandoning the Vineland extension, and to confirm a resolution of the directors abandoning the company's line from a point east of Beamsville, being the westerly side of the township line, adjacent to the easterly limit of the Village of Beamsville to Vineland, Ont., and to take up the rails and ties and restore the roadway to its former condition.

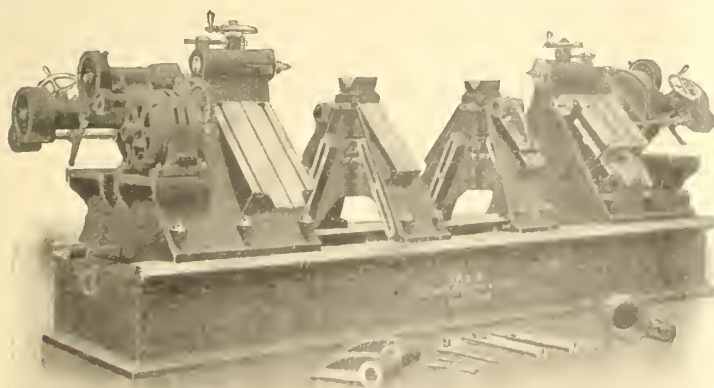
Hamilton Radial Ry.—Some difficulties have arisen between the company and the Wentworth County Council respecting the proposed extension to Bartonville, Ont. (July, pg. 315).

London Street Ry.—A contract has been let for the erection of general offices for the company on the site of the old town hall, Dundas St., East London, Ont. The building will be a two-storey one, of brick. On the ground floor there will be the general offices, including offices for the Cashier, Superintendent and Mechanical Engineer. On the first floor there will be accommodation for the General Manager, Secretary and Treasurer, stenographers, and a board room. Large vault accommodation will be provided on both floors.

Work is progressing on the extensions on the Hamilton and Wortley roads, and it is expected to have them both completed in the fall. (July, pg. 315).

Montreal and Southern Counties Ry.—The charter for the construction of this projected electric railway was originally granted by

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With Outboard Support for Boring Spindles and Removable Rest for Turning Crank Pins.

This 90° Quartering Machine is designed for quartering and boring crank pin holes in locomotive driving wheels having right hand lead and wheels having left hand lead up to 85" in diameter on the tread. The boring spindles have 15" travel and two changes of power and rapid hand movement. The saddles are graduated and have angular adjustment for any length of stroke from 12" to 36". The axles are held on their centres and supported by adjustable V bearings, the wheels being clamped to the side of the frame. Each head is arranged to be driven by a 5 H.P. electric motor.

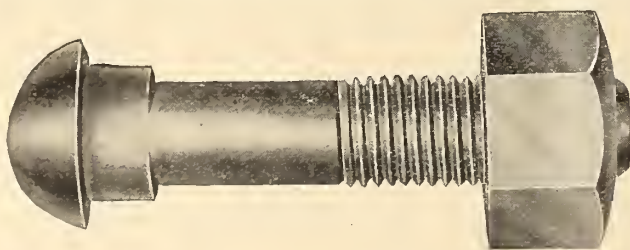
The JOHN BERTRAM & SONS CO., Limited
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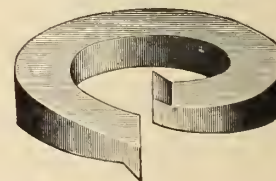
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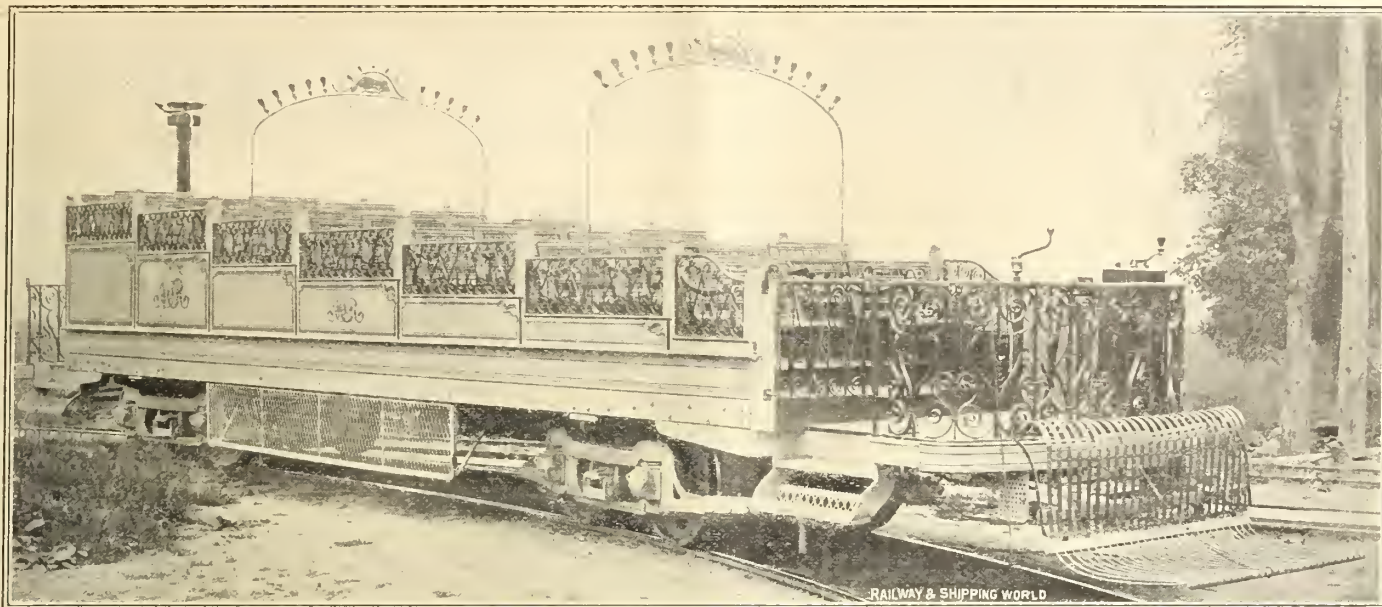
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the Dominion Parliament in 1897, and an amending act was passed in 1898. At the recent session of the Dominion Parliament an act was passed extending the time for the completion of the lines authorized.

Montreal Terminal Ry.—The company is laying out a park at Tetreauville, about three miles below Maisonneuve, and one mile east from Longue Pointe village, and has built a branch of a mile from its main line northerly to give access to the park. The cars will make the run from City Hall Avenue, Montreal, to the park, nine miles, in about 45 minutes, and the return fare will be 15c.

The roadways committee of the Montreal City Council has recommended the council to grant the M.T. Ry. a revision of its contract so that it may be on the same basis as that of the Montreal Street Ry. The recommendation will come before the council early in August. (July, pg. 315).

Niagara, St. Catharines and Toronto Ry.—In connection with the recent purchase of the line by interests allied with the Electrical Development Co. of Ontario, it is stated that it is intended to operate the line in conjunction with the Toronto and Ham-

ilton Ry., which is to be constructed over the E.D. Co.'s right of way from Niagara to Toronto.

In connection with the proposed extension to Welland, Ont., the line will probably start from the main line at the crossing of the Welland canal, a short distance west of St. Catharines, and will run via Fonthill to Welland, a distance of about 12 miles. A survey along this route is being made by A. H. N. Bruce, under the direction of W. T. Jennings, chief engineer Toronto and Hamilton Ry., Toronto. A survey of another route from Thorold, via Allanburg and Port Robinson, to Welland, 11 miles, is also being made. The result of the present surveys will decide the route to be followed. It is likely to be by Fonthill on account of the local business there, but the route is more difficult from a construction point of view than that by Port Robinson. It is likely that construction will be started this year. The western extension surveys from St. Catharines to Hamilton are also being checked over, but it is not probable that any construction will be gone on with on it during the current year.

The company intends to do away with the

trestle work between Merritton and Thorold and to replace it by steel and some filling. Some of the filling may be gone on with this year. (May, pg. 205.)

Port Credit to Collingwood.—A proposition has been made to several municipalities in connection with a proposal to construct an electric railway from Port Credit to Collingwood, Ont. The proposition is made in connection with a power development plant on the Credit River near Erindale. Jos. Barrett, who is General Manager of the company developing the power, has had interviews with Brampton, Ont., and other municipalities in respect of the electric railway.

Quebec and Saguenay Ry.—A revision survey of the line previously located between St. Joachim and Murray Bay, in 1895, by E. A. Hoare, Quebec, is being made by J. M. Shanley, C.E. J. M. McCarthy, of the Jacques Cartier Water, Light and Power Co., has been appointed consulting engineer. A director recently stated that tenders may be asked for in Aug. (July, pg. 315.)

Schomberg and Aurora Ry.—A station building has been erected at the junction

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TEMAGAMI

(300 Miles North of Toronto, Ont.)

One of the best fishing and hunting districts in America.

Unlimited attractions for the camper, canoeist and sportsman.

Black Bass, Speckled Trout, Lake Trout, Wall-eyed Pike, Common Pike and other species of fish in abundance.

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Magnificent scenery and attractive canoe trips.

The district is situated 1,000 ft. above the level of the sea. Handsome illustrated descriptive matter, giving all particulars, routes, maps, etc., sent free on application to

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MY PRICES ON NEW AND SECOND-HAND MAY INTEREST YOU

H. W. PETRIE

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TORONTO, ONT.

with the Metropolitan Division of the Toronto and York Radial Ry., on Yonge St., near Bond Lake, Ont., and arrangements have been made for a connection with the G.T.R. at King station, for dealing with through freight.

Southwestern Traction Co.—The by-law confirming the agreement between St. Thomas, Ont., and the company respecting the use of the city's street railway, was carried by a vote of 453 to 22. Construction between St. Thomas and Port Stanley, Ont., will now be pushed. (July, pg. 315).

Toronto and York Radial Ry.—The Metropolitan Division is being extended northward from the present terminus at Newmarket, through Queensville, Sutton and Roach's Point to Jackson's Point on Lake Simcoe, about 25 miles. Ewen Mackenzie is the contractor, the company supplying all materials, such as steel, ties, etc. The rails are T pattern, 60 lbs. to the yard, and were purchased in England. It is expected to have the track laid this season. A station building has been completed at the junction of the line with the Schomberg and Aurora Ry., near Bond Lake, and additional plant is being installed in the power house at Bond Lake. The question of double-tracking the line for some distance north of the C.P.R. tracks on Yonge St., is being discussed with the municipal authorities. (July, pg. 315).

Toronto Ry.—The City Council is asking for the construction of some additional lines, and for the arrangement of additional routes.

Winnipeg Electric Street Ry.—Work is being steadily progressed with on the company's power development plant at Lac du

Bonnet, Man., and it is expected to have power delivered in Winnipeg in Oct. The plant will develop 30,000 horse-power. At the beginning of July 35 of the 65 miles of power transmission line had been completed.

Electric Ry. Finance, Meetings, Etc.

British Columbia Electric Ry.—Railway earnings for May—Vancouver, \$22,219; Victoria, \$12,065; Westminster, \$11,662; total, \$45,946, against \$40,452 for May, 1904. Gross earnings, railway and lighting, \$72,090, against \$64,170 for May, 1904. Working expenses, \$39,953; renewal funds, \$6,695; net income, \$24,442, against \$26,780 working expenses, \$5,988 renewal funds, and \$20,792 net income for May, 1904. Net earnings for 11 months ended May 31, \$302,842, against \$263,553 for same period 1903-04.

Halifax Electric Tramway Co.—Railway earnings for June, \$12,795.75, against \$14,050.58 for June, 1904.

Hull Electric Co.—At the annual meeting of the shareholders of this company which owns the Hull Electric Ry., the retiring directors were re-elected. The officers and directors for the current year are: President, A. R. Crechman, K.C.; Vice-President and General Manager, C. W. Spencer; other directors, W. R. Baker, D. McNicoll, I. G. Ogden, J. Osborne, all of the C.P.R., and E. Hanson.

Kingston, Portsmouth and Cataraqui Electric Ry.—An agreement has been reached between the city corporation and the bond holders of the company as to the concessions

to be given to a new company to take over the line. The summarized concessions are as follows: Power at 1.66c. a kilowatt hour; the right to double track any portion or portions of the line; the right to cut out the Williamsville branch; reduced service from Sept. 15 to June 15; exemption from taxation for 25 years; relief from paying part of cost of removing snow from streets and from keeping roads between tracks graded. It is understood that the bonds have been turned over to the new company for \$70,000, and that an additional \$8,000 or \$10,000 will be expended upon improvements. The principal people in the new company are W. F. and H. C. Nickle; G. and H. W. Richardson. The car service was resumed July 11.

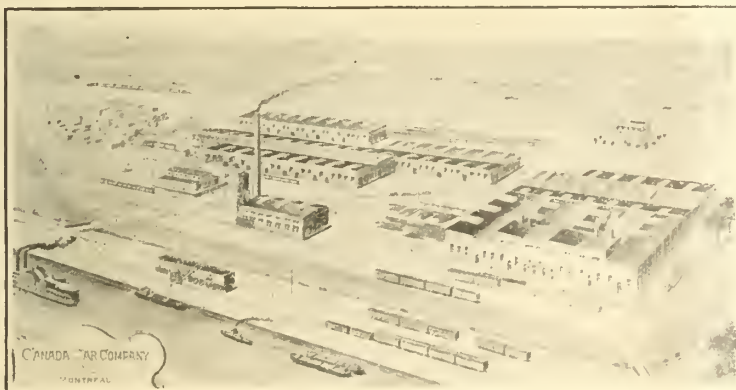
Levis County Ry.—At the sheriff's sale recently the line was sold for \$50,000 to J. Foreman, Montreal, who acted on behalf of the re-organization committee. The sequestrator, A. E. Scott, will shortly be discharged.

Montreal Street Ry. Passenger earnings for June, \$244,435.79; total earnings \$248,200.46, against \$229,564.83 and \$232,610.40 for June, 1904, working expenses \$137,593.87; fixed charges \$29,510.06; surplus \$81,092.53, against \$131,588.68 working expenses; \$26,295.09 fixed charges, and \$74,726.63 surplus for June 1904. Net earnings for nine months ended June 30, \$665,471.18; fixed charges \$199,167.93; surplus \$466,303.25 against \$611,980.59, net earnings; \$175,371.01 fixed charges; and \$436,609.58 surplus for same period, 1903-04. Interest on Montreal Park and Island Ry. Co.'s bonds held not included.

Toronto Ry.—Car earnings \$231,140.13, against \$207,482.35.

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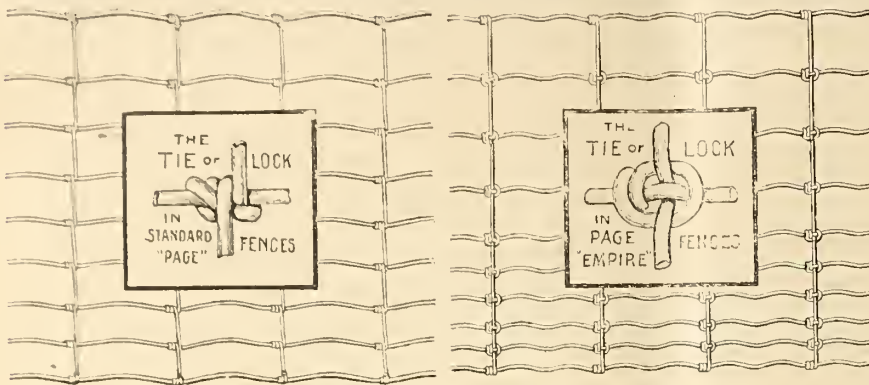
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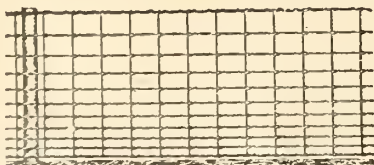
S.S. Canada, August 5; S.S. Southwark, August 12; S.S. Dominion, August 19; S.S. Ottawa, August 26; S.S. Kensington, Sept. 2; S.S. Canada, Sept. 9; S.S. Southwark, Sept. 16; S.S. Dominion, Sept. 23; S.S. Ottawa, Sept. 30.

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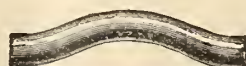
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ESTIMATES PROMPTLY FURNISHED.

Electric Railway Notes.

The General Manager of the Toronto Ry. told the city council recently that 70 new double truck cars were under construction at the shops for the city lines.

The Chatham, Wallaceburg and Lake Erie Ry. has placed an order for four cars for fall delivery, and it is expected that a further order will be placed for four more cars for winter delivery.

The Ontario Appeal Court has decided that the Hamilton Street Ry. must provide limited tickets to anyone applying for the same, and must also pay a percentage of its entire receipts to the city.

The conductors and motormen of the Cornwall Street Ry. struck on June 28 for an advance of wages. They first asked 17c. an hour, then offered to accept 15c., and finally went back to work July 4, at the old rate of 13c.

It has been reported that the two new cars recently put on by the Montreal Street Ry., on which passengers have to pay their fares on entering the cars, show an increase of 10% in earnings per car mile, over the cars on which the old system of collecting fares is in use.

The Niagara, St. Catharines and Toronto Ry. has added three 50 ft. double-truck motor cars to its equipment. The car bodies and trucks were purchased in the U.S., and the motors were supplied by the Canadian General Electric Co., Toronto, the cars being put together by the company at St. Catharines, Ont.

The Sydney, N.S., police magistrate recently fined the Cape Breton Electric Co., owning the street railway there, \$200 for having employed its General Manager, A. J. Bemis, at Boston, Mass., and importing him to Canada, in contravention of the Alien Labor Law. One of the company's ferry steamers was seized under a distress warrant, July 5, on account of the non-payment of the fine.

The Montreal Street Ry. has placed in service on its line a new type of observation car, for which a patent has been applied for. The car is quite open, being without a top, and is provided with six rows of seats, that in front being the lowest, and the others each somewhat higher, so that all passengers can have a full view of the street ahead. The entrance is at the front platform, and a broad aisle runs down the middle of the car. Electric lights are displayed on brass rails, arranged in the form of arches over the car. An illustration of the car appears on pg. 371.

Freight Development by Interurban Roads.

By E. F. Seixas, General Manager Niagara, St. Catharines and Toronto Railway and Navigation Co.

The transportation service performed by the railways includes the movement of freight, the carriage of passengers and the transmission of mail and express matter. Each of these services merits careful consideration. Whether viewed from the standpoint of public benefit or considered with regard to the volume of business done and profits received by the company, the transportation of freight is the most important service performed by the railway. The income from the passenger business is about one-fifth of the total income and earnings of the railroads in the United States, while the receipts from freight amount to seventenths. Moreover, the social welfare is more dependent upon cheap and unfettered movement of commodities than upon inexpensive and speedy means of travel. However important it may be that the relatively few people who may at any one time desire to take a journey should be able to reach their destination promptly and comfortably, it is of incalculably greater consequence that pro-

ducers should be able to dispose of the commodities upon the sale of which their livelihood depends, and that consumers should have the power of drawing upon distant, as well as near, sources of supply for the satisfaction of their wants and the gratification of their desires.

The volume of freight transported increases rapidly with the progress of civilization and the diversification of men's wants. The freight business is carried on to enable men to secure what they want, and the more complex their demands, the more goods will be produced and transported. The growing demand for the freight service has furnished a most powerful stimulus to inventors and engineers to lessen the obstacles to the movement of commodities by improving tracks, cars and locomotives, and making other changes in the railway mechanism whereby the costs of transportation have been reduced to their present small amount. Whether the endeavor of railway companies to increase the speed of their passenger trains or their efforts to lessen the cost of freight movement have been the more potent incentive to mechanical improvements, it would be impossible to say, but the results accruing to society from these improvements have come more largely from the greater facilities for the shipment of goods. So writes Professor E. R. Johnson, in his very excellent review of American Railway Transportation, and with this summary we may for the present dismiss our friends, the steam roads. The conditions that have caused such signal success in the passenger business on interurban lines that depend on electric energy for their motive power are to a great extent responsible for the hearty greeting with which the average shipper, be he merchant or farmer, hails the advent of the trolley, and for the great complaisance with which he views the humming, whizzing cars that frighten his team of colts and send clouds of dust into his wife's otherwise immaculate parlor.

The first condition that tells in favor of the interurban line is the frequent service and the frequent stopping places. The second is that the interurban line is more or less of a local affair, and for that reason is more intimately cognizant of local necessities. In the battle between the piston rod and the trolley pole, passenger rates have suffered to a more or less extent, while freight rates have pretty generally remained where they were. The interurban lines have not found it necessary to inaugurate a rate war to get freight business from the steam roads, for they receive and are justly entitled to their proportion of the business on account of the increased facilities.

The present Niagara, St. Catharines and Toronto Ry. was originally a steam road, constructed in 1886, and changed to electricity in 1899 and 1900, the first electric car running July 19, 1900, from Niagara Falls, Ont., to St. Catharines. Prior to the change in 1900 the road had, through poor management and consequent poor patronage, fallen into the hands of a receiver, and was sold by the courts under the hammer, afterwards converted into an electric line, extended to Port Dalhousie, and communication established with Toronto by steamers, which are also owned and operated by the company. A track connection had by the original company been arranged with the Michigan Central Rd. at Niagara Falls, Ont., which has been since maintained, and which affords free interchange of cars to and from all points in Canada and the United States, thus forming a line in competition with the G.T.R. in the territory covered by the electric line and its steamers, for which purpose the road was intended. The gross annual freight earnings of the line prior to 1900, or during the operation by steam, were less than \$10,000, and the freight handled was confined to low classes of carloads, such as coal, this being in fact the principal traffic handled. Very little

attention was paid to the higher class traffic, such as package merchandise, and it was not until 1901 that any marked increase was shown. This upward tendency was caused by an energetic and persistent endeavor on the part of the management to increase the development of the facilities which were practically dormant, in taking care of higher class traffic and leaving the low class to itself. The methods of handling had to be improved, a system organized, and particular attention paid to the despatch of business taken hold of. There was no attempt made to reduce rates, the traffic being carried on exactly the same conditions as steam lines under all circumstances. It was found that accommodation to patrons had a great deal more effect than any benefits derived from useless rate-cutting. Cars are placed at convenient points for shippers to load, and they are picked up at convenient hours, and shipping receipts are given at the counters of the business firms by a responsible man who has the freight train in charge, thus saving the customer the trouble and time of going to the railway station to make shipments. All this tended to increase popularity, and consequently, by increased shipments, revenue, until for the year ending December 31, 1904, we are able to show an earning of 460% greater than in 1900, and an operating expense of 55% as against a previous loss. The package freight must stay with the electric roads, as their methods will, if properly organized, hold it against steam roads, unless congestion is allowed, when the great advantage of quick handling will be lost. The handling of low class freight involves the expense of terminal facilities which in large cities is practically prohibitory, and unless there is assured enough freight to keep a regular competitive service against steam fully alive, it is better that electric roads confine their business to the higher classes of merchandise. With us it is found also that switching service is a source of revenue, which, if facilities are available, is remunerative. We have arrangements to switch loaded cars to and from the G.T.R., our competitor, and for industries located on our tracks. This service is easily performed and at a very little expense, the distance usually being short and the cargo quickly handled, and it pays because ordinary power is employed at times when we can afford it without detriment to our other interests. There is, in our opinion, ample revenue in the development of freight service for interurban lines, provided, as has been done in our experience, that low class traffic is not sought after too closely and only taken care of when it involves the higher classes. No freight can be handled at a profit that pays less than 1c. per ton per mile, and even at that figure there is not enough revenue to warrant short-haul lines seeking it. To sum up, all that is necessary to make electric lines a factor in freight traffic is to seek high class freight, handle it quickly, and attend promptly to customers' requests.

We have found that working arrangements cannot well be based upon a mileage rate unless constructive mileage is allowed the smaller line, and it is not practicable to do this in our case (although conditions with other lines may be different and groupings may be obtained from connecting lines), because ours is a lake and rail line, peculiarly situated and breaking bulk, and our connections do not, therefore, favor percentage arrangements. We have worked out almost our entire traffic on an arbitrary basis receiving as our proportion on classes one to six under the official freight classification the following figure, viz.:

Class	1.	2.	3.	4.	5.	6.
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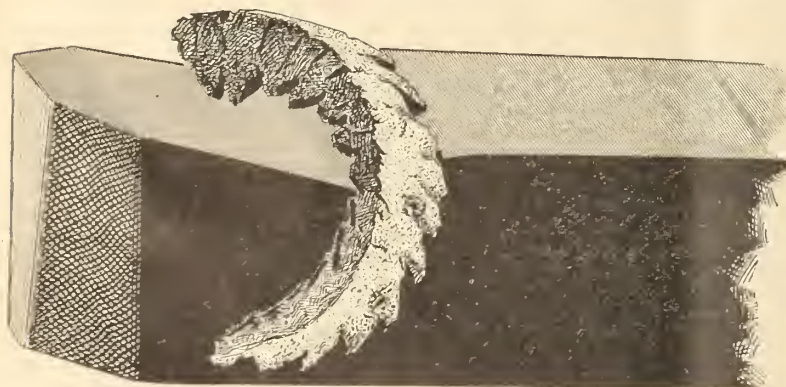
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on an arbitrary basis than on a percentage arrangement, although the disadvantage of having no voice in rate making without consent is apparent by reason of non-participation in the reduction of rate asked, but this is only a matter of correspondence, we find, and is generally acceded to readily by connections upon representations of facts. The classes shown do not cover the low class or commodity traffic which I have alluded to in the first part of this paper, which are carried only by special arrangement between lines interested and generally calls on the short lines to reduce their earnings to merely what it cost to handle, hence the assertion that it is better to leave it alone except where it may carry other higher traffic with it, when it cannot profitably be turned down, because the manufactured product might be lost, and as this is high class it is profitable. We unfortunately had to take hold of an existing line, with its rates and obligations fixed, and we were unable to alter the existing divisions of rates, although we have from time to time endeavored to do so. Initial errors are costly, and upon interchange being arranged, care should be taken to have all traffic arrangements thoroughly arranged by competent men, fully conversant with such subjects. The earnings per ton per mile should be fixed as high as possible, and never allowed to be less than what steam lines earn. Short mileage allows fair revenue such as our earnings, being not less than 25 per cent. minimum of through rates, and upon extension of line minimums could be increased correspondingly. Conditions of traf-

fic in Canada differ, however, from the United States in many respects. For instance we have in large centres cartage to perform, which is forced upon us by an old existing arrangement made by the G.T.R., when it was practically the only line in Canada. It was inaugurated by that line to take care of friends. This is a burden, because the expense is not covered by extra charge made above freight rates, part being absorbed in the rate. Another factor of expense in handling is the freight car equipment, which costs interurban lines per diem rate of 20c. for every calendar day if foreign lines permit the use of cars. No line should be dependent upon equipment belonging to others, nor should they undertake to do more than deliver on cars at convenient points, unless the circumstances are very exceptional, as every transfer or movement necessarily costs money and increases the operating expenses materially. Rates should be maintained, and although steam roads are liable to cut with a view of forcing the business from electric roads, the public soon find that the real object is to force the electric road out of the business and enable the steam line again to put up its rates with all the old disadvantages of slow time and poor service. Another commending advantage to interurban lines is that their business is done on main roads in a number of cases, where there are no terminal expenses, unless they endeavor to enter into active competition with steam lines, when terminals must be provided.

The handling of fruit is an important item in our season's business, Toronto being the

central market. To handle our heavy freight traffic with the quickest despatch at a minimum cost has brought us to a point of efficiency whereby we find it necessary to allow our boats only 30 minutes at terminal points to load and unload from five to seven car-loads of freight. To meet the requirements of our traffic we built a number of four-wheeled platform trucks, the platform of which is similar to express trucks seen on steam lines and capable of carrying two tons. On these we load all merchandise and package freight, ready to run aboard the boat on her arrival. The incoming freight is received from the forward gangway, and the outgoing freight is run on board over the after gangway. To handle our fruit traffic with despatch we have erected at points along the line fruit platforms, on which we keep a supply of these trucks. The farmer drives to this platform, loads his fruit on the trucks, and this is picked up by our freight train, which consists of flat cars the same height as the platform, and run to make connections with each boat. This train carries three men, who run the loaded trucks from the platform on the cars. At Port Dalhousie they are run directly from the cars on to the boat. This prevents handling, which is very damaging to the fruit, and also permits the fruit grower to use a cheaper grade of baskets, thereby effecting a great saving for him.

On the whole, therefore, freight business of interurban lines will pay if confined to the higher class of traffic, and if particular attention is paid to despatch and accommodation to the public.

LIST OF STEAMSHIPS REGISTERED IN CANADA FROM JUNE 1 TO JUNE 30.

Name.	No.	When and Where Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Albatross.....	116,929	London, Eng.,	Screw 22 N.H.P.,	96.5	12.1	6.5	38	26	Victoria, B.C.,	E. Quennell, Nanaimo, B.C.
Annie.....	116,238	Camden, Me., 1886,	" 1 "	36.0	9.5	4.0	7	4	Digby, N.S.,	S. L. Dakin, Beaver Harbor, N.B.
Eleanor.....	117,080	Parry Sound, Ont., 1905,	" 13 "	71.0	14.1	6.6	84	57	Toronto, Ont.,	Mrs. C. E. Pratt, Parry Sound, Ont.
Frank L.....	117,079	Parry Sound, Ont., 1905,	" 10 "	68.7	14.0	6.6	46	31	Toronto, Ont.,	W. H. Oldfield, Parry Sound, Ont.
Jessie Mac.....	117,115	Vancouver, B.C., 1905,	" 9 "	61.5	16.0	7.5	57	39	Vancouver, B.C.,	J. McDawen, Vancouver, B.C.
Laura A.....	116,989	Port Frances, Ont., 1905,	" 4 "	44.5	9.5	4.0	26	17	Kenora, Ont.,	G. C. Allan, Port Frances, Ont.
Le Roi.....	117,112	Vancouver, B.C., 1905,	" 51 "	108.3	21.6	12.0	196	133	Vancouver, B.C.,	T. J. Kickham, Vancouver, B.C.
McCulloch.....	117,117	Vancouver, B.C., 1905,	" 13 "	64.0	14.7	6.7	39	27	Vancouver, B.C.,	J. C. Fulton, Vancouver, B.C.
Northern Belle.....	117,105	Sturgeon Falls, Ont., 1905,	" 40 "	104.0	21.6	7.6	221	168	Ottawa, Ont.,	French River and Nipissing Navigation Co., Sturgeon Falls, Ont.
Reliance.....	117,114	Vancouver, B.C., 1905,	" 1 "	26.8	8.6	3.9	10	7	Vancouver, B.C.,	D. S. Gray, Vancouver, B.C.
Sea Lion.....	117,116	Vancouver, B.C., 1905,	" 52 "	114.0	22.0	19.5	218	148	Vancouver, B.C.,	G. H. French, Vancouver, B.C.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM JUNE 1 TO JUNE 30.

Name.	No.	When and Where Built.	Reg.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Arabia.....	121,652	Tusket Wedge, N.S., 1904,	Sloop	33.0	10.6	6.0	10	10	Yarmouth, N.S.,	E. J. Le Blanc, Tusket Wedge, N.S.
Blanche.....	116,855	Sable River, N.S., 1905,	Schr.	37.1	13.5	4.9	12	12	Shelburne, N.S.,	J. Matthews, Blanche Point, N.S.
Charles E.....	121,654	Shag Harbor, N.S., 1904,	Schr.	35.5	12.5	6.0	13	13	Yarmouth, N.S.,	E. Larkin, Shag Harbor, N.S.
Dundonald.....	121,657	Sturgeon Falls, Ont., 1905,	Barge	64.0	18.0	7.0	64	64	Ottawa, Ont.,	French River and Nipissing Nav. Co., Sturgeon Falls, Ont.
Ella G.....	116,928	Victoria, B.C., 1905,	Schr.	49.4	13.6	6.6	20	16	Victoria, B.C.,	W. H. Porter, Victoria, B.C.
Emily C.....	121,657	Meteghan, N.S., 1905,	Sloop	33.0	10.4	6.0	11	11	Yarmouth, N.S.,	N. Courreau, Meteghan, N.S.
Eric.....	116,913	Liverpool, N.S., 1905,	Schr.	78.6	21.3	7.2	61	61	Liverpool, N.S.,	G. R. Moulton, English Harbor, N.S.
Florence B. W.....	116,531	Mahone Bay, N.S., 1905,	Schr.	46.2	15.6	7.0	24	24	Lunenburg, N.S.,	S. W. Westhaven, West Point, N.S.
Fusiana.....	117,135	Cape Island, N.S., 1905,	Sloop	33.0	11.9	6.0	12	12	Yarmouth, N.S.,	H. T. Hines, Argyle, N.S.
Genevieve.....	117,041	Shag Harbor, N.S., 1905,	Sloop	32.5	12.0	6.0	11	11	Barrington, N.S.,	C. H. Goreham, Woods Harbor, N.S.
Georgiana H.....	117,113	Vancouver, B.C., 1905,	Barge	187.0	39.0	9.8	649	649	Vancouver, B.C.,	Mackenzie Bros. (Ltd.), Vancouver, B.C.
Gloriana.....	117,137	Tusket Wedge, N.S., 1905,	Sloop	34.0	11.0	6.0	10	10	Yarmouth, N.S.,	A. Boudreau, Tusket Wedge, N.S.
G. M. Cochrane.....	116,902	Fox River, N.S., 1905,	Schr.	113.2	30.0	10.6	257	220	Parrsboro, N.S.,	S. J. Soley, et al., Fox River, N.S.
Hazel Maud.....	117,091	Liscomb, N.S., 1905,	Schr.	35.0	11.3	5.6	10	10	Arichat, N.S.,	J. Hartling, Liscomb, N.S.
Indiana.....	121,655	Yarmouth, N.S., 1904,	Sloop	34.0	11.3	6.0	10	10	Yarmouth, N.S.,	M. D. Boudreau, Tusket Wedge, N.S.
Laura E.....	117,114	Cape Island, N.S., 1905,	Sloop	31.0	11.0	6.0	10	10	Yarmouth, N.S.,	A. E. Nickerson, Cape Island, N.S.
Madona.....	85,403	Magdalen Is., Que., 1905,	Schr.	41.5	14.8	6.2	10	10	Quebec,	A. C. Arseneault, Magdalen Islands.
Maple Leaf.....	116,237	Westport, N.S., 1905,	Sloop	33.6	11.3	5.6	10	10	Digby, N.S.,	H. P. Denton, Westford, N.S.
Mersey.....	116,914	Liverpool, N.S., 1905,	Schr.	117.4	28.5	10.9	221	191	Liverpool, N.S.,	A. W. Hendry, Liverpool, N.S.
Mollie.....	116,856	Shelburne, N.S., 1905,	Schr.	82.0	21.8	8.3	85	85	Shelburne, N.S.,	J. T. Thomson, Halifax, N.S.
Ora Nickerson.....	121,658	Tusket Wedge, N.S., 1905,	Sloop	35.0	11.2	6.0	12	12	Yarmouth, N.S.,	W. H. Nickerson, Tusket Wedge, N.S.
Pelley.....	160,930	White Horse, V.T., 1905,	Barge	106.0	34.3	5.5	169	169	Victoria, B.C.,	British Yukon Nav. Co., Vancouver, B.C.
Royal.....	121,653	Tusket Wedge, N.S., 1904,	Sloop	33.4	10.6	6.0	10	10	Yarmouth, N.S.,	G. Boudreau, Tusket Wedge, N.S.
Shiuey Maru.....	117,118	Bowin Island, B.C., 1905,	Schr.	66.0	16.5	6.0	45	45	Vancouver, B.C.,	Hisakichi Oura, Steveston, B.C.
St. Donat.....	117,138	Ste. Croix, Que., 1905,	Schr.	82.6	21.8	6.8	75	75	Quebec,	L. Lallier, Ste. Croix, Que.
Squanto.....	121,660	Cape Island, N.S., 1905,	Sloop	33.0	11.4	6.0	11	11	Yarmouth, N.S.,	A. L. Doucette, Tusket Wedge, N.S.
Thalia D.....	117,139	Cape Island, N.S., 1905,	Sloop	31.0	11.0	6.0	10	10	Yarmouth, N.S.,	A. Duncan, Cape Island, N.S.
Togo.....	116,532	Tancook Island, N.S., 1905,	Schr.	43.2	11.0	6.2	14	14	Lunenburg, N.S.,	A. H. Stevens, Tancook Island, N.S.
Two Brothers.....	117,138	Pinkney's Point, N.S., 1905,	Sloop	34.0	11.3	6.0	11	11	Yarmouth, N.S.,	J. L. Surette, Pinkney's Point, N.S.
Valentin.....	121,651	Tusket Wedge, N.S., 1905,	Sloop	32.0	10.6	6.0	10	10	Yarmouth, N.S.,	S. Le Blanc, Tusket Wedge, N.S.
Valkyria.....	117,142	Indian Harbor, N.S., 1905,	Schr.	42.0	11.6	6.2	13	13	Halifax, N.S.,	H. Covey, Indian Harbor, N.S.
Viola.....	121,659	Tusket Wedge, N.S., 1904,	Sloop	33.0	11.0	6.0	10	10	Yarmouth, N.S.,	J. Le Blanc, Tusket Wedge, N.S.
White Eagle.....	117,042	Clark's Harbor, N.S., 1904,	Sloop	32.0	11.2	6.2	10	10	Barrington, N.S.,	L. Nickerson, Cape Island, N.S.
Zelpha.....	121,656	Clark's Harbor, N.S., 1904,	Sloop	32.0	11.4	6.0	10	10	Yarmouth, N.S.,	M. Penney, Clark's Harbor, N.S.

Grain Elevator Notes.

The elevators at Eln Creek and Starbuck, Minn., on the C. P. R., and at Sperling, Minn., on the Canadian Northern Ry., were recently offered for sale by tender.

R. D. Martin, who died at Montreal, June 28, resided in Manitoba from 1882 until about 1900, when he moved to Montreal. He was

engaged in the grain trade, and was one of the largest shareholders in the Northern Elevator Co., Winnipeg.

The Calgary Colonization Co. is reported to have let contracts for the construction of 10 elevators of 30,000 bush. capacity each, at points between Edmonton and McLeod, Alta. It also proposes to erect a flour mill at Calgary, Alta.

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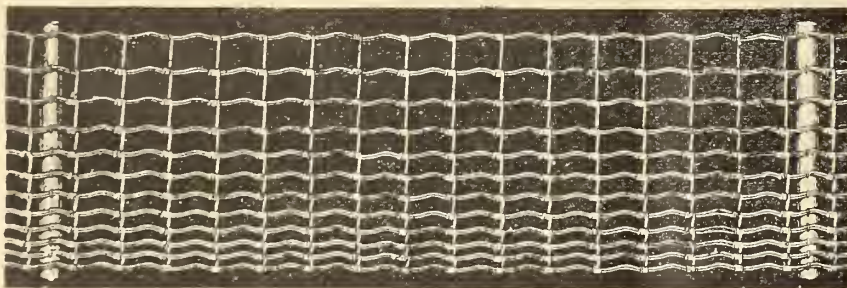
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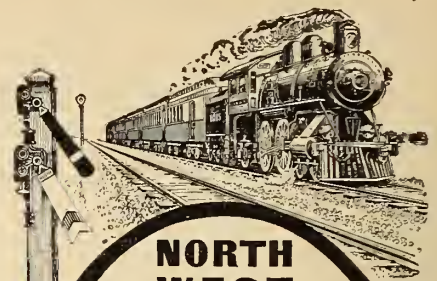
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The elevator, which is to be erected by E. R. Bacon, of Chicago, Ill., near Midland, Ont., by arrangement with the G.T.R., will be of steel and will have a capacity of 1,000,000 bush. The point at which the new elevator is to be constructed is at Dollartown, which name it is proposed to discard, and to name the station which is to be built there, Tiffin, after W. R. Tiffin, superintendent of the Northern Division of the G.T.R.

The elevator of the Goderich Elevator and Transit Co., Goderich, Ont., was totally destroyed by fire, July 3. The fire broke out about noon, spontaneous combustion being the assigned cause, and spread so rapidly that it was impossible to do anything to save the building or its contents. The power house adjoining was slightly damaged. At the time of the fire there were about 300,000 bush. of grain in the elevator. The elevator was valued at \$130,000 and was insured for about \$88,000, and there was about \$127,000 of insurance on the grain. The elevator was constructed about seven years ago, to replace the burned G.T.R. elevator. Towards the cost of its construction the G.T.R. contributed the amount of the insurance received on the old elevator. The town voted \$50,000; N. and A. Dymont took \$10,000 in stock in part payment of their account for lumber, and considerable additional capital was subscribed locally.

The St. Boniface, Man., taxpayers have passed a by-law exempting from taxation the proposed new flour mill and elevator of the Western Canada Flour Mills Co. The company proposes to build a 4,000 barrel flour mill, a 500,000 bush. storage elevator, and a 70,000 bush. storage warehouse. The elevator will be of the tank type, and will be constructed of concrete, with fireproof roof. Tenders for the construction of the mill, elevator and warehouse have been asked for. The officers are: President, A. Kelly, Brandon, Man.; Vice-President and General Manager, S. A. McGaw; Secretary, A. Hillis; Treasurer, A. Barclay. The executive committee consists of the President, Vice-President and L. Lukes, Toronto. In addition to the buildings at St. Boniface, the company proposes to erect a number of elevators at different points, probably duplicating the 50 at present controlled by it. A Battleford despatch states that the company has secured sites for elevators at the following points on the Canadian Northern Ry.'s main line: Veregin, Quill Lake, Mikado, Canora, Invermay, Wadena, Englefeldt, and Munster, and that application has been made for similar privileges at Aberdeen, Clarkboro, Warman, Elbow, Goodrich, and North Battleford.

The report of the Department of Trade and Commerce for the year ended June 30, 1904, recently issued, contains some information respecting the number of grain elevators in operation in the Western Grain Inspection district of Canada. There were on that date the following:—

	No.	Cap. Bush.
Public country elevators....	912	27,214,000
Warehouses.....	64	
Terminal elevators.....	6	13,972,000
Total.....	982	41,186,000
Total for 1903.....	822	30,356,400

With reasonable railway transportation the report states these are estimated to take care of 100,000,000 bush. of wheat. The Canadian Northern elevator at Port Arthur, Ont., is the largest, having a capacity of 3,350,000 bush. There are but few 3,000 bush. warehouses in operation at present, although there are 60 under 10,000 bush. The average capacity for all elevators and warehouses, exclusive of the six terminal ones, is about 28,000 bush. There are 20 elevators at 13 points east of Lake Superior, having a total capacity of 11,710,000 bush., the largest being at Midland, Ont., 1,250,000 bush., and the smallest at Sarnia, Ont., 100,000 bush. Five of these elevators are at Montreal, the total capacity being 3,000,000 bush.

SHIPPING MATTERS.

International Waterways Commission.

The members of the International Waterways Commission spent some time on the eastern portions of Canada during the early part of July. On July 7 they met in Ottawa, and had interviews with the Premier, the Minister of Marine, and other members of the Government, collecting information. The Commission consists of six members and two secretaries, three members and a secretary being appointed by Canada, and a similar number by the United States. By agreement the duties of the commissioners are limited to an investigation into the condition of the international waterways discharging into the ocean through the St. Lawrence River. The commissioners meet either jointly or separately as occasion may require. The Canadian commissioners are J. P. Mabce, K.C., Toronto (Chairman); W. F. King, Dominion Astronomer, and L. Coste, C.E.; the U.S. commissioners being Col. Ernest, Washington (Chairman); G. Clinton, Buffalo, N.Y., and G. Y. Wiseman, Detroit, Mich.

On July 8 the commissioners visited Montreal, and went on a trip of inspection on the Richelieu and Ontario Navigation Co.'s str. Montreal round the harbor, and subsequently visited Quebec. On July 11, the commissioners held a sitting at Montreal for the purpose of meeting the various public bodies and hearing what they had to say. The interests represented were the city of Montreal, the Board of Trade, the Harbor Commissioners, the Chamber of Commerce, the Shipping Federation, and the Dominion Marine Association. Representatives of the Dominion and Ontario Governments, the Queen Victoria Niagara Falls Park Commission, and a number of the power companies having charters to develop power at Niagara Falls, were also present. The principal matter discussed was the proposed construction of a dam at the Lake Erie outlet, and the general opinion expressed was that nothing should be done which would tend to lower the waters of the St. Lawrence River and Lake Ontario. The construction of a dam at the Lake Erie outlet would largely benefit U.S. ports; some Canadian ports would be benefited, but it might prejudicially affect Lake Ontario and the St. Lawrence River.

The views of the Dominion Marine Association on the proposal are set forth in the following memorial which was presented to the commission at Montreal:—

"Your memorialists include in their membership roll the leading vessel interests of the inland waters of Canada, and represent most of the tonnage interested in the navigation of the Lakes and Upper St. Lawrence, over 112,000 net registered tons of vessel property being enrolled. Your memorialists have considered the proposal to erect a dam at the lower end of Lake Erie, and having regard to the fact that the St. Lawrence route is the natural passage from the Great Lakes to the sea, and is now used by a large and constantly increasing number of vessels, many of them of full canal size and heavy tonnage; and having regard also to the narrow margin of safety in the navigation of certain parts of the harbors, channels and canals on this route and the necessity for maintaining the levels at least at their present standard, in order to accommodate the present traffic, and in particular having regard to the fact that a channel of only 11 ft. of water is provided in the Upper St. Lawrence, and that this depth has only been attained at the expense of much time and labor and large sums of money; your memorialists believe that any lowering of the water in this route would not only be exceedingly detrimental to the trade interests directly involved, but would also sacrifice the rights of the much larger number who enjoy indirectly as well as directly the benefits of this great

water highway; your memorialists therefore respectfully present a most emphatic protest against any action which could possibly in any way endanger or interfere with the maintenance of the present levels in the waterway between Niagara and the sea. Your memorialists understand that it is your intention to obtain full and satisfactory expert evidence regarding the effect of the proposed dam upon the waterways below it, and your memorialists' urgent desire is that if such evidence casts doubt upon the maintenance of the levels in question the proposed work should be reported against and condemned as improper."

The commissioners left Montreal on the Dominion cruiser Frontenac and reached Kingston, Ont., July 13, and a public session was held there July 14. The City Council, the Dominion Marine Association and the Kingston Board of Trade were represented at the sitting. The members of the deputations gave the commissioners a good deal of interesting information in regard to the river and lake. Col. Ernest expressed the opinion that if shippers on Lake Erie would be helped without hurting those below it would be to the advantage of all, but to do anything in Lake Erie that would hurt the St. Lawrence would be a crime against humanity, and he would never agree to it.

The commissioners decided to adjourn until Sept., and fixed the following dates for further joint sittings:—Sept. 11 and 12, Buffalo, N.Y.; Sept. 13 and 14, Niagara Falls; Sept. 15, Toronto; Sept. 16, Hamilton, Ont.

Beeson's Marine Directory of the Northwestern Lakes for 1905, has been issued by H. C. Beeson, Chicago, Ill. This is its 19th year of publication, and the publisher says in his introduction that six months have been expended in its reconstruction and recompilation, with the object of making the list of vessels, etc., more complete and up-to-date than has heretofore been possible. The illustrations and special letter-press, which have always been a feature of this publication, deal with the development of the Sault Ste. Marie canals during the past 50 years. The illustrations show the original lock, built by the Hudson's Bay Co., and destroyed by the U.S. forces in the war of 1812, as it has been reconstructed on the original site. The historical facts, the statistics given as to the growth of traffic through these canals, and the illustrations will make the present volume of special interest in connection with the celebration of the 50th anniversary of the opening of the U.S. Canal, which takes place during the current month.

Montreal merchants are making efforts to induce the Dominion Government to grant a subsidy for a second mail service to Great Britain, to supplement that given by the Allan Line. The suggestion is that the subsidy be given to the Dominion Line, which now has the Ottawa (formerly the White Star liner Germanic) and the Canada on the route, and which is in a position to add the White Star liners Majestic and Teutonic, now on the Liverpool-New York route.

In consequence of a proposal that Sydney, N.S., be made the point for the landing of mails from Great Britain instead of Rimouski, Que., a test was made in connection with the Allan liner Virginian, leaving Liverpool, Eng., July 6. The cruiser Canada was directed to watch for the vessel and to land the mails at Sydney. Fog delayed the Virginian, and the two vessels failed to communicate by wireless telegraphy. However, they managed to connect, and the mails were landed at Sydney, whence they were conveyed to their destination by a special train. So far as Nova Scotia and New Brunswick points are concerned the mails were delivered considerably earlier than would otherwise have been the case, but the Allan Line officers state that no time was saved so far as Montreal and western points are concerned.

The St. Lawrence Canals.

The new regulations relating to the method of vessels being passed through the locks of the Cornwall Canal continue to be a cause of complaint by steamer captains and owners. Complaints are reported to be constantly made as to delays, etc., caused by the new system, but neither these nor the representations of the Dominion Marine Association

have brought about the restoration of the old plan. In referring to the matter the Montreal Gazette in a recent issue says:—"Instead of the steamer desiring to lock through the Cornwall Canal approaching the locks and getting in under its own power, a personally conducted plan which involves the use of much electricity has been adopted. At every lock an electrical winch has been provided. Attached to the winch is a long cable. When a vessel ap-

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proaches the lock it is supposed to come to a dead stop, land a couple of men, who proceed to the winch and bring from it to the vessel the cable. The cable is attached to the side of the steamer. It cannot be attached to the bows of the vessel, for the pull is not a straight one. Even when it is attached to the side the assistance of the steamer's engines is required in order to place the vessel in a proper position for entering the lock. When the steamer finally is thus hauled and self-propelled into the lock the ordinary process is gone through with. Then the electrical winch and the cable again come into use, and the steamer is laboriously hauled out of the lock and is free to proceed to the next, at which the same operation is gone through with."

Capt. Hickley, of the Richelieu and Ontario Navigation Co.'s str. Brockville, in giving his experience of the new method says he is compelled to carry two additional men to do, or attempt to do, what vessels are required to do unassisted at all the other canals.

The proposal of the Dominion Marine Association that the Carillon and Grenville Canal should be lighted by electricity will not be acted upon this season. Tenders were called for but nothing has been done and no reason has been given for the failure to take action.

Notices to Mariners.

The Department of Marine has issued the following notices to mariners:—

No. 44. June 10.—New Brunswick—110. St. John River, Grand Lake, Cox point, change in character of light. 111. St. John River, Grand Lake, Robertson Point, change in character of light. 112. St. John River, Grand Lake, Fanjoy Point, change in character of light. 113. North-east coast, Chaleur bay, Belloni Point, light improved.

No. 45. June 12.—New Brunswick—114. Bay of Fundy, Garnet rock, temporary light.

No. 46. June 13.—Ontario—115. Lake Huron, Goderich, construction of breakwater, temporary lights.

No. 47. June 13.—Quebec—116. River St. Lawrence, below Quebec, Father Point, gas buoy established.

No. 48. June 20.—Quebec—117. River St. Lawrence, ship channel between Quebec and Montreal, Champlain upper range, new range towers. 118. River St. Lawrence, Lake St. Peter, Pointe du Lac range, light-house foundation placed.

No. 49. June 22.—New Brunswick—119. Northumberland Strait, Richibucto harbor entrance, south beach, changes in bar range lights. 120. Northumberland Strait, Richibucto harbor entrance, bell buoy established.

No. 50. June 26.—Nova Scotia—122. South coast, La Have River, Oxners rock, buoy established. 123. South coast, Mahone Bay, Gull ledges, south-west ledge, buoy established. 124. South coast, off Whitehead Island, south-west Bull, bell buoy established. Prince Edward Island—125. South coast, Hillsborough Bay, position of Fitzroy rock, bell buoy. 126. South coast, Hillsborough Bay, off St. Peters Island, buoy established. 127. South coast, Bedeque Harbor, Indian spit, change in character of buoy.

No. 51. June 27.—Nova Scotia—129. Madame Island, Little Arichat, off Crichton Head, change in character of buoy. 130. Cape Breton Island, Great Bras d'Or, change in character of buoys.

No. 52. June 28.—British Columbia—131. Pender Island Canal, buoys established. 132. Strait of Georgia, off Tumbo Island, Rosenfelt reef, change in character of buoy. 133. Strait of Georgia, Burrard Inlet, off Grey point, bell buoy established. Alaska—134. Tongass Narrows, Peninsula point, beacon established, Rosa reef beacon replaced by a new structure.

53. July 3.—British Columbia—135. At Boundary bay, Mud bay, beacons. 136. Strait channel, off Thetis Island, uncharted rock. 137. Pyllades channel, uncharted rock. 138. Strait of Georgia, Gabriola reefs and pass, uncharted rocks.

No. 54. July 6.—Quebec—139. River St. Lawrence, Lake St. Peter, Louisville range, lighthouse foundation placed.

The following have been issued by the U.S. Hydrographic Department:—

No. 26. July 1.—St. Marys River—953. Mud Lake, Pilot Island range light station, new range lights. Lake Erie—956. Conneaut harbor, hydrographic information.

No. 28. July 15.—Lake Erie—1019. Bass Islands, shoals discovered. 1020. Pelee passage, wreck, buoy placed.

Maritime Provinces and Newfoundland.

The name of the schooner L. P. Churchill, no. 61,578, of Sackville, N.B., has been changed to the Minnie T.

The Pickford and Black Co. has chartered the Quebec Steamship Co.'s str. Caribbee to run from Halifax, N.S., to West Indian ports, in place of the Dahonie.

The Deer Island and Campobello Steamship Co. has decided to build a steamer to replace the Viking. A new boiler will be placed in the Viking at the close of the season.

The str. Restigouche ran on the rocks off Cape Freels, Nfld., recently, but was got off after some hours. On reaching St. John's, Nfld., she was put in dry dock for repairs, and was put on her run again from Montreal to St. John's, July 19.

Troop and Sons (Ltd.) has been incorporated under the New Brunswick Companies' Act, with a capital of \$50,000 and offices at Rothesay, N.B., for the purpose of carrying on a shipping and brokerage business, and to acquire, own and manage vessels. The provisional directors are: H. D., J. V., and C. McL. Troop, J. E. Irvine, Mrs. L. C. McLaughlin, of St. John, N.B.

The Dominion Government is having 25 submarine bell stations erected along the Atlantic and St. Lawrence gulf coasts. The sites for the last of the stations were been selected off Scattarie Island and off Louisburg, N.S., July 6. A press report states that a number of the trans-Atlantic steamers will not be equipped with receiving apparatus in connection with these bells.

Thos. McConkey has been appointed ship's husband of the Department of Marine and Fisheries, with headquarters at Halifax, N.S. His duties consist of reporting upon and attending to necessary repairs to the hulls, anchors, cables, boats, spars, sails, etc., of all Government ships. He is under the orders of Commander Spain, the officer commanding the Marine Service of Canada.

The latest proposal in connection with the project to erect a dry dock at St. John, N.B., is that the Dominion Government should guarantee the bonds of the company, taking in return the subsidies granted, viz.: \$5,000 a year for 40 years, voted by the province; \$2,500 and a free site, voted by the city, and a surrender of the subsidy of 3% on the cost up to \$1,000,000 for 20 years, provided for by the Dominion act relating to the construction of dry docks.

The Sydney, N.S., city council discussed at considerable length, July 7, the report of a sub-committee which has been considering the proposal for establishing a shipbuilding yard there. The committee stated that the suggestion was that a large British shipyard, which had a branch in India, would establish a yard in Canada. The report proceeded that those promoting the shipyard considered

"the point on the harbor fronting Victoria Park grounds as in every respect suitable if it were placed at their disposal free of cost; and the committee, from all the information gathered from these gentlemen, consider it of the greatest importance to the best interests of Sydney and of Canada generally that the council do take every means to procure from the Dominion Government the right to transfer said grounds to this company to establish so mammoth an industry thereon, and therefore would recommend that the city will enter into an undertaking to favorably consider the surrender of Victoria Park for the purpose of establishing thereon a shipbuilding plant or other industry of a like important nature whenever it shall be satisfactorily demonstrated that the gentlemen interested in the company are in a position to carry out the project successfully and are prepared to enter into satisfactory guarantee as to amount of money to be expended and number of men employed." The report was adopted.

Province of Quebec Shipping.

The Quebec and Levis Ferry Co. is making extensive improvements to its property on both sides of the river

H. Menier, of Anticosti, has brought out two iron lighthouses from France, to be placed at Ellis Bay, Anticosti Island.

Hon. L. Pelletier recently purchased the steam yacht Crescent in New York, and is having her thoroughly overhauled at Levis, Que.

The name of the tug Adriatic, of Quebec, official no. 111,482, has been changed to William Hackett, by order-in-council dated June 28.

The Montreal Harbor Commission is building a wharf at the works of the Locomotive and Machine Co., Longue Pointe, Que. The company contemplates erecting a coal handling plant on the wharf next year.

The Richelieu and Ontario Navigation Co.'s str. Chateauguay broke her rudder chain while passing through the Lachine Rapids, with a party of 300 excursionists on board, July 1, but was got through in safety.

The proposal to abolish the Montreal Harbor Commission as at present constituted, and to replace it by a paid commission appointed by the Government, did not come before the House of Commons last session, but will probably be introduced early in the session of 1906.

The promoters of the new steamship line between Quebec and Great Britain have had a number of interviews with the Quebec Harbor Commissioners, relative to the proposal. The Commissioners are in favor of granting a number of privileges to the company, but at the last meeting, held July 14, nothing definite was decided.

The St. Lawrence Floating and Wrecking Co., Montreal, has purchased the str. Marie Josephine from A. Gagnon, Quebec. The Marie Josephine was built at Riviere du Loup, Que., 1891. Her dimensions are: length, 88.4 ft.; breadth, 22.8 ft.; depth, 8.2 ft.; tonnage—gross, 117 tons; register, 80 tons. She is a screw steamer having engines of 20 nominal h.p.

The Quebec Harbor Commissioners have let a contract to M. P. Davis & Co., for the work of strengthening the walls of Louise dock, the embankment and other works of improvement there. The work is very extensive and will involve an expenditure of about \$500,000. The whole of the embankment facing the two basins and the wall running parallel with the St. Charles River, together with the cross wall beginning to give way at the north end, will have to be buttressed and a new strong wooden facade constructed.

In introducing the bill respecting the port and pilotage district of Quebec, the Minister of Marine stated in the House of Commons, recently, that the abolition of the present pilotage authority was asked by the shipping interests and was agreeable to the pilots. It was an extension of the principle of the law applying to the pilots between Montreal and Quebec which had been found satisfactory. The act provides for the inclusion of the Saguenay River in the pilotage district of Quebec, and then provides that "The Harbor Commissioners of Quebec shall cease to be the pilotage authority of the pilotage district of Quebec, and all the powers vested in the said

commissioners as such pilotage authority, either under the Pilotage Act and the acts amending it, or under the Quebec Harbor Commissioners Act, 1899, shall be vested in the Minister of Marine and Fisheries: Provided that nothing in this act shall authorize the Minister to sit as a tribunal for the trial of offences of which pilots may be accused before the pilotage authority; but the Minister may, in any case not provided for by the Shipping Casualties Act, 1901, and amendments thereto, designate a tribunal or officer to try any such offence." The bill has passed through the House of Commons.

Ontario and the Great Lakes.

Capt. H. C. Rothwell, a former steamship owner and master mariner of Kingston, Ont., died there recently, aged 70.

The Dominion Government has let a contract for dredging the harbor at Port Burwell, Ont., at 14½c. a cubic yard.

The Crawford Tug Co., of Warton, Ont., has purchased the wreck of the str. Pease, and will convert it into a barge.

Capt. R. H. Gilbertson, for many years engaged as a master mariner on the Upper Lakes, died at Beaverton, Ont., recently.

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The name of the str. *China*, of Toronto, official no. 117,073, has been changed to *City of Montreal*, by order-in-council dated July 3.

The keel for the Niagara Navigation Co.'s new steamer was laid at the Toronto yard of the Canadian Shipbuilding Co., early in July.

A contract has been let by the Dominion Government to Haney and Miller for the construction of a breakwater at Port Stanley, Ont., to cost about \$100,000.

G. N. Matheson has been appointed a measuring surveyor of shipping at Sarnia, Ont., and W. H. Farr has been given a similar appointment at Port Stanley, Ont.

The Ontario Government has ordered the purchase of a small steamer for use on Lake Temagami, as an aid in enforcing the fish and game regulations, and the work of the fire rangers.

C. H. Harvey, of Toronto, the engineer who built the first lock at Sault Ste. Marie, Mich., will be present at the celebration of the 50th anniversary of the opening of the same, to be held during August.

The Montreal Transportation Co.'s str. *Quebec* has been undergoing repairs in the Government dry dock at Kingston, having recently been ashore below Quebec, and breaking away from a tow near Morrisburg, Ont.

During June the canals at Sault Ste. Marie carried 6,057,491 tons of freight, of which 1,011,412 passed through the Canadian canal. Up to June 30 of the present season there had passed through the canals 11,833,278 tons, of which 2,100,372 went through the Canadian canal.

The Northern Navigation Co.'s str. *Germanic* has been withdrawn from the Toledo-Sault Ste. Marie run, and has been placed on the route from Collingwood, Ont., to replace the burned str. *City of Collingwood*. The hull of the burned steamer has been offered for sale by the underwriters.

The Hamilton Steamboat Co. is seeking to obtain an injunction restraining R. O. and A. B. Mackay from obstructing the passage way or slip by which its steamers reach the wharf at Hamilton, Ont. The increased size of the steamers landing at the Mackay wharf is stated to be largely the cause of all the trouble.

The Toronto Board of Control has reached a basis of agreement with the Toronto Ferry Co., whereby the service to the Island, and the dock accommodation will be largely improved. The Ferry Co. will take a five year lease of the new wharf at the foot of Bay St., and will provide two new ferry steamers, at a cost of \$100,000.

Since the explosion of the acetylene gas buoy at Kingston, Ont., the buoys have been charged to only five atmospheres pressure, instead of 12 as formerly. This necessitates the recharging of the buoys more frequently, and recently complaints have been made that several of the buoy lights were almost out, owing to the low pressure.

Capt. Baker, of the str. *Hamilton*, sighted recently what he believes to be the wreck of the dredge *Sir Wilfrid*, which foundered off Port Hope, Ont., about three years ago, while being towed from the Polson Iron Works, Toronto, where she was built, to Montreal. The dredge has since been finally located and steps will be taken to raise it.

The str. *Lincoln*, which was burned at Sandwich, Ont., has been sold to Capt. F. W. Doty, and towed to Goderich, Ont., where she will be rebuilt. The work is expected to be completed by the end of August, when she will be placed on a run between Pelee Island and the mainland. The *Lincoln* was originally the *Greyhound* and was well known in Toronto.

The Department of Railways and Canals has appointed a number of the former collectors of canal dues to collect statistics of traffic passing through the canals. The points at which these collectors are stationed are Sault Ste. Marie, Port Colborne, Port Dalhousie, Williamsburg, Carillon, Grenville, Galops, Cornwall, Ont.; Soulanges, Lachine, Chambly, Que.; and St. Peters, N.S.

H. B. Whitton, one of the directors of the Hamilton Steamboat Co., has been in Great Britain recently obtaining information in view of the company's intention to build another steamer. It is likely that the new steamer will be built in Canada, and not on the Clyde, as were the *Macassa* and *Modjeska*, and it is stated that she will be a side-wheeler with very large passenger accommodation.

Instructions have been given to Collectors of Customs that U. S. launches are not to be allowed to carry passengers to or from Canadian ports unless they have undergone inspection in Canada. It is claimed that large numbers of launches carry passengers to and from Canadian ports, and it is stated that some of them do a regular ferry business between Clayton, N.Y.; Kingston, Ont., and other points.

An order-in-council has been passed defining the limits of the port of Port Arthur, Ont., as follows:—"All the waters of Thunder Bay north of a line drawn due east astronomically from the point where the boundary line between the municipalities of Port William and Port Arthur cuts the shore of Thunder Bay, and west of a line drawn due south astronomically, from the extremity of Bare (Barass) Point."

The Ontario Government some years ago constructed several dams in the Trent valley with a view of maintaining a navigable depth of water in the waterways there. In connection with the carrying out of the construction of the Trent valley canal by the Dominion Government, it has been found advisable to transfer these dams from the Province to the Dominion, and a conference was recently held by representatives of the two governments as to the conditions of the transfer.

The Union Steamship Co. has been incorporated under the Ontario Companies' Act, with a capital of \$100,000 and offices at Hamilton, Ont., for the purpose of carrying on a general navigation and transportation business. The provisional directors are R. O. and A. B. Mackay, W. G. Walton, W. Southam and W. Magee, all of Hamilton, Ont. The steamer which the company will operate is under construction at Dundee, Scotland, and is expected to reach Hamilton in the fall. She will be named the *Glendell*.

A collision occurring between two United States vessels, in the harbor of Sandusky, Ohio, formed the subject of a case in the Canadian Admiralty Court, at Toronto, recently. Justice Hodgins decided that the court had jurisdiction to try the case and award damages, it having been shown among other things that the D. C. Whitney was libelled in Canadian waters by the owners of the schooner *Mongu* agon. The matter was referred to the local registrar at Windsor, Ont., to fix damages. An appeal will probably be taken to the Supreme Court.

R. O. and A. B. Mackay, of Hamilton, Ont., have purchased the str. *Osceola*, of Chicago, Ill., and when she is overhauled and altered, she will be given a Canadian registry under the name of *Golspie*. The *Osceola* is a screw steamer, built of wood, at Bay City, Mich., 1882, and having the following general dimensions: length, 183 ft.; breadth 31 ft.; depth, 13 ft.; tonnage—gross, 980 tons; register, 787 tons. She is fitted with fore and aft compound engine, cylinders 20 and 10 ins. diameter by 36 ins. stroke, steam being supplied by one fire-box boiler, 10½ by 12 ft., con-

structed at Detroit, Mich. The *Osceola* was formerly owned by the Lake Michigan and Lake Superior Transportation Co., Chicago. She is reported to have been chartered to the Dominion Government for three years for service as a lighthouse tender.

The str. *City of Montreal*, operated by the Montreal and Lake Erie Steamship Co., made her first trip between Montreal and Detroit, Mich., early in July. She makes the round trip in two weeks, calling at Kingston, Toronto, Cleveland and Toledo, Ohio en route. A party of business men was entertained at a trial trip from Toronto, July 1, the owners being represented by Jas. Carruthers, President, and C. A. Jaques, Managing Director. The steamer was formerly known as the *China*, and ran in the Anchor Line Co.'s routes on the Upper Lakes from Buffalo. She was overhauled and re-engined at Toronto before being put on the Montreal-Detroit route by her new owners. The *City of Montreal* will carry 1,200 tons on a 14 ft. draught, and has accommodation for 150 passengers. She is equipped with a fore and aft compound engine, of 128 h.p., steam being supplied by two Scotch boilers 11 by 12 ft., at a working pressure of 140 lbs.

Our Winnipeg correspondent wrote on July 15:—"The vessel interests continue to find the grain trade dull but with all interests making extensive preparations for handling the greatest crop that the West has ever grown and in this connection the recent loss of the Goderich elevator by fire will prove a great misfortune to all interests, as under ordinary circumstances the elevator accommodation at the eastern end of the lake route has proved unequal to handling the fall movement of wheat without serious delay to vessels, and fear is now expressed that Buffalo will secure a very large share of the coming Northwest Canadian crop. The coal and ore business still continues exceptionally good so far as Canadian boats are concerned, as does also the steel rail movement, and if this trade should continue into the fall months there will be a very serious shortage of tonnage for the grain trade, and as the U.S. vessels are about in the same condition, the prospects are for a high range of rates during the latter part of the season. Package freight conditions remain about the same as the past month, with all lines getting into shape to handle the largest business on record. There is no change in the rate situation on any of the commodities mentioned."

The Kingston, Ont., schooner *Acacia* was in Charlotte, N.Y., July 4, and the captain hoisted the Union Jack, under what circumstances does not appear to be quite clear, but the flag was ordered down, it is alleged, by the Collector of Customs, on pain of the schooner being refused clearance papers. The matter has been brought to the notice of the Dominion Government, and representations will probably be made through the proper channels to the U.S. Government at Washington. A vessel has the right to fly the flag of the country to which it belongs, in whatever port it may be, and a captain should see that it is always displayed in its proper position. In this case the captain apparently had not any flag flying, and on being spoken of on his vessel not being decorated in honor of the U.S. national holiday, he immediately had the Union Jack hauled up. Nothing was done to warrant the refusal by the Collector of the clearance papers, as is alleged, but on the other hand the circumstances attending the hoisting of the British flag were such as to suggest the "Who'll tread on the tail of my coat" episode of Donnybrook fair. Canadian captains do not fly the British flag as they ought to do at all times when entering a foreign port, and the sooner they learn to do so, the sooner will an end be put to such incidents as occurred at Charlotte, July 1.

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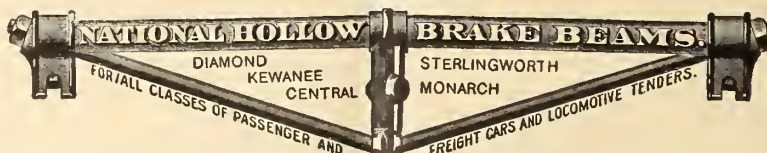
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Manitoba and the Northwest Territories.

Pettypiece and McIntosh, Battleford, Sask., have purchased a gasoline launch for passenger and light freight trade on the Saskatchewan River.

Prince Albert, Sask., has been constituted a port of registry for shipping, and Capt. A. Deacon has been appointed a measuring surveyor of shipping there.

The Dominion Government has chartered the sealing str. Neptune to take a further cargo of supplies to the str. Arctic, now on duty as a patrol vessel in Hudson Bay and adjacent waters.

A new steamer named the Midnight Sun started trading from Athabasca Landing, Alta., to Grand Rapids, Artha., making the round trip in a week, at the opening of navigation. Bredin and Cornwall, of Lesser Slave Lake, are interested in the venture.

The Hudson Bay Co.'s str. Strathcona, which arrived recently at Edmonton, Alta., from Prince Albert, Sask., made the trip in 10 days. She reported that navigation was impeded by the bridge at Battleford, and by the ferry cables at different points.

A proposal has been made in Winnipeg to construct a new channel for the Red River, so as to throw St. Boniface into Winnipeg. The suggestion is to cut a straight channel from the converging point of St. Mary's road and St. Anne's road, St. Boniface, almost opposite the north end of River Park, to a point near the Ogilvie mills.

For the use of the Mounted Police and the officers of the Department of Indian affairs, the Government has purchased a 120 ton launch for service on Lake Winnipeg. The steamer is to be used for patrol purposes, and as a link in a new line of communication which it is intended to open up between Winnipeg and Hudson Bay. It is also proposed to secure a somewhat similar boat for Hudson Bay.

The Pioneer Navigation and Land Co. is building a steamer on the Red River at Winnipeg, to replace the Gertie H., burned last year. The dimensions of the new steamer are: length, 142 ft.; breadth, 21 ft.; she will have a carrying capacity of 300 passengers, and 200 tons of cargo. The J. M. Smith will be the name of the steamer, which will be used this year entirely for freighting purposes.

B.C. and Pacific Coast Shipping.

A 20 h.p. launch has been completed at Victoria, B.C., for Jas. Dunsmuir.

The C.P.R. engineers have been making surveys at Kelowna, B.C., with the object of improving the wharfage accommodation there.

A gasoline launch, 22 ft. long with a beam of 5 ft., and equipped with engines of 5 h.p., has been completed on James Bay, Victoria, B.C.

The Hazel Dollar, recently completed at Glasgow, Scotland, for the Dollar Line, has arrived at San Francisco, Cal., with a cargo of steel rails. Most of the company's steamers are registered at Victoria, B.C., but are operated from San Francisco.

A fine 30 h.p. gasoline motor launch has been completed at Vancouver, B.C., for the British Columbia Electric Ry. Co., for the use of its officers travelling between Vancouver and the company's water power works at Lake Beautiful. The launch is 38 ft. long.

The snag boat built at Victoria, B.C., last year for the Dominion Government, for service on the Fraser River, has been laid up for repairs, which it is estimated will cost \$1,000.

A New Westminster paper states that a good deal of the money has to be spent to remedy faults of design, and imperfect specifications.

Capt. Gore, Superintendent of C.P.R. steamers in the Kootenay country, is quoted as having given some details regarding the new steamer to be built on the lake for the Nelson-Kootenay Landing run. It is said that the new steamer will be a stern-wheeler, larger than the Rossland, now running between West Robson and Arrowhead, and will have a speed of 18 miles an hour, that she will have berth accommodation for 75 first-class passengers, and that she will be built at Nelson, under Capt. Gore's charge.

In connection with the taking over of the hydrographic survey of the Pacific coast from the Imperial Admiralty, the Secretary of State recently said in the House of Commons that the Dominion Government had under consideration the desirability of inviting the co-operation of the United States to complete the surveys in the water adjacent to its territory of Alaska, while the Dominion Government was completing the surveys of the waters on the northern coast of British Columbia. It was stated that the navigation in the districts mentioned was the most intricate in the Dominion, and that there was a very large trade there.

The Union Steamship Co.'s new str. Camosun, built at Paisley, Scotland, arrived recently at Vancouver, B.C., from the builder's yard. Her dimensions are: length, 192 ft.; breadth, 35½ ft. She has a gross tonnage of 1,369 tons, and has accommodation for 100 passengers. She is equipped with triple expansion engine, capable of developing 1,600 h.p.; cylinders, 18½, 30 and 50 ins. diameter, by 36 ins. stroke. Her guaranteed speed is 14 knots an hour. She is lighted throughout by electricity, and is well equipped for the speedy loading and unloading of freight as well as for the comfort and convenience of passengers. The Camosun has been placed on the northern B.C. run.

Among the Express Companies.

The Western Ex. Co. has opened an office at Manfred, N.D.

J. W. Hutt, Vice-President and General Manager, National Ex. Co., died at New York City, June 25.

The Western Ex. Co. has given notice that automobiles or motor cycles, with tanks containing gasoline, must be refused.

The Sydney and Glace Bay Ry. is operating an express service on its electric line between these two Nova Scotian towns.

F. L. Stone, son of J. R. Stone, agent Canadian Ex. Co., St. John, N.B., is the inventor of a mechanical method of measuring the slip in induction motors.

The Toronto and York Radial Ry. states that the express business on its Metropolitan Division, between Toronto and Newmarket, Ont., has more than doubled during the last twelve months.

A law has been passed by the State of Washington, declaring it to be unlawful to carry shipments originating at and destined to a point within the State free. The law does not apply to shipments originating in the State for outside points, or to shipments delivered in the State from outside points.

The Canadian Ex. Co. has opened offices at Bedford, P.E.I.; Norton, Upper Blackville, N.B.; Caldwell, Ont.; and a new summer season office at Elgin House, Muskoka, Ont. Its offices at Amigari, Eden, Mount Elgin, Port Burwell, Salford, Strathfordville, Tillsonburg, Vienna, Ont.; Nash's Creek, N.B., and Westchester, N.S., have been closed.

Telegraph and Cable Matters.

The Western Union Telegraph Co. has laid a new cable from Port Angeles, Wash., to Victoria, B.C., seven miles, to replace the old cable which became disabled during the past winter.

The Western Union Telegraph Co. is about to extend its lines from Halifax to the Government Marconi wireless station at Camperdown, and from Glace Bay to the Marconi Wireless Telegraph Co.'s new station there.

The Dominion Parliament has passed an act for the regulation of wireless telegraphy in Canada. The act is in the same terms as the Imperial statute, and provides that no wireless station shall be established in Canada without a license from the Governor-in-Council.

Recent reports from Yukon Territory state that forest fires have been raging for some time in northern British Columbia, Yukon and Alaska, and that many miles of the Government telegraph line from Ashcroft, B.C., to Dawson, Yukon, have been destroyed.

F. D. Matthews, of Montreal, was recently at St. John's, Nfld., in negotiation with the Colonial government respecting the establishment of Marconi wireless telegraph stations to connect the island with Nova Scotia. The result of the negotiations have not been announced.

A St. John's, Nfld., press report states that the Newfoundland government has completed arrangements to lay a cable from Basque to Canso, N.S., a distance of about 200 miles. The new cable, it is stated, will be laid by the Commercial Cable Co., which has the terminal of its trans-Atlantic cables at Canso.

The cable str. Cambria is engaged taking soundings from 190 miles west of Waterville, Kerry, Ireland, across the Atlantic, for the purpose of selecting a route for the new trans-Atlantic cable of the Commercial Cable Co. The Cambria has already laid the shore end from Waterville, and the main cable will be laid by the Colonia, a new steamer, from Canso, N.S., working eastward.

The Toronto Globe of July 5, 1855, said: "The Grand Trunk line of telegraph was offered yesterday by auction at Wakefield's. There were several large capitalists present. Bidding was rather slack and as it did not reach anything approaching the estimated value, the trustees bid the property in at £11,500. It will be again offered at the same place on Aug. 2, to be sold then without reserve."

The Dominion steamer Lady Laurier has been equipped with Marconi wireless telegraph apparatus. Wireless telegraph stations on the same system are being constructed at Cape Sable, N.S., and St. John, N.B., and are expected to be completed by August 31. The station at Sable Island has been completed and is in regular communication with the station at Camperdown, Halifax, N.S.

Hon. A. McKay, manager for Newfoundland of the Anglo-American Cable Co., recently stated that it was not improbable that four or five of the cables now landed on the Newfoundland coast would be shifted so that they would land in Nova Scotia, as a result of the tax which the Newfoundland government had decided to levy. The change would mean a saving of about \$150,000 a year to the Anglo-American Cable Co.

The first sitting of the Pacific cable conference was held in London, Eng., recently. Sir Wm. Munlock representing Canada; Lord Jersey, the Australian Commonwealth, and Sir Sandford Fleming, New Zealand. The agreements between certain of the Australian

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Grand Trunk Elevators, No. 2 and No. 3, Portland, Me.	"	2,500,000 "
Export Elevator, Buffalo, N.Y.	"	1,000,000 "
J. R. Booth Elevator, Depot Harbor, Ontario	"	1,000,000 "
Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	"	1,000,000 "
Erie R. R. Transfer & Clipping House, Chicago, Ill.	"	100 cars in 10 hrs.
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	"	1,500,000 "
Burlington Elevator Co., Peoria, Ill.	"	500,000 "
Canada Atlantic Railway Elevator, Coteau Landing, Que.	"	500,000 "
Northern Grain Co., Manitowoc, Wis.	"	1,350,000 "
Union Elevator, East St. Louis, Ill.	"	1,100,000 "
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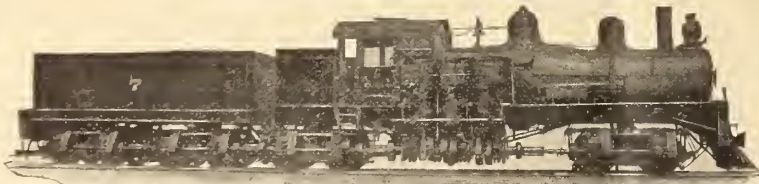
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States and the Eastern Extension Telegraph Co. were discussed, and various working and financial questions connected with the Pacific cable were also dealt with.

The Dominion Parliament has voted \$125,000 to meet the probable losses on the working of the all-British trans-Pacific cable. The net earnings of the cable for the last year were £78,824, and the expenses £167,869. In the expenses there is included £77,000 to be paid annually for extinguishing the cost of laying the cable. The deficit was £89,045. According to the agreement Great Britain and Canada each pay 5-18ths of the cost of maintenance, Australia, 6-18ths, and New Zealand, 2-18ths.

Dominion Telegraph Co.'s Report.

At the annual meeting in Toronto, July 12, the following financial statement was presented for the year ended June 30:—

ASSETS.	
Capital expenditure.....	\$1,281,819.47
Toronto, Grey & Bruce Ry. Co. 1983 bonds, and interest thereon.....	1,596.24
Suspense.....	2.87
Cash in bank and on hand.....	29,153.79
	\$1,312,572.37
LIABILITIES.	
Capital stock paid up.....	\$1,000,000.00
Dividends unclaimed.....	1,081.05
Dividend payable July 15.....	15,000.00
	\$1,016,081.05
Balance at credit of profit and loss account.....	296,491.32
	\$1,312,572.37

The directors reported the regular payment, quarterly in advance, for the past 26 years, of the guaranteed interest at the rate of 6% per annum on the capital stock of the company, by the lessees, the Western Union Telegraph Co., up to and including June 30, which interest has been duly distributed quarterly to the shareholders of the Dominion Co., the lease being for 99 years, from July 1, 1879.

The following were elected directors for the ensuing year: Belvidere Brooks, T. F. Clark, R. C. Clowry, E. Jarvis, C. O'Reilly, M.D., H. Pellatt, A. G. Ramsay, T. Swinyard and T. R. Wood. At a meeting of the newly elected board, T. Swinyard was re-appointed President; T. R. Wood, Vice-President, and R. Roper, Secretary and Treasurer.

General Telephone Matters.

The Bell Telephone Co. has opened a toll office at Hohnfield, Man.

The Bell Telephone Co. is constructing a rural party line from Lakefield to Buekhorn, Ont.

The Temiskaming Telephone Co. has opened call stations at Hanbury, Uno Park and Milberta, Ont.

The Bell Telephone Co. has extended its long distance lines to Eastman's Springs, Ont.; St. Prosper and Papineauville, Que.

The Bell Telephone Co. is extending its lines along the Gatineau River valley as far as North Wakefield, Que. It is proposed to operate rural lines.

The Nova Scotia Telephone Co.'s building at Halifax, N.S., had a narrow escape from destruction by fire, July 8. The fire was on the second floor, but was extinguished before any serious damage was done.

The British Columbia Telephone Co. is constructing a new line through the Boundary country from near Cascade to Greenwood, B.C., via Phoenix. The work is being done under the charge of G. C. Hodge, the company's Superintendent, at Nelson, B.C.

The Melita-Arthur Telephone Co., Ltd., has been incorporated under the Manitoba Companies' Act, with a capital of \$10,000 and offices at Melita, Man., to carry on a general

telephone business. The provisional directors are: D. Day, Arthur; L. W. Hunt, Lyleton; W. J. S. Atkinson, Melita.

The British Columbia Telephone Co. recently started the laying of underground wires in Vancouver, B.C. The city authorities objected to the company's operations and force was used to prevent further work. H. W. Kent, the company's Superintendent, together with several workmen, were arrested, but proceedings against them have not been followed up. The city applied to a court for an injunction to prevent the company from proceeding with construction, but Justice Morrison declined to grant it, on the grounds that the company had done only what the law authorized it to do, and that it had not been shown that there had been any invasion of the rights of the corporation. The company resumed work July 5, in laying its wires underground in lanes and streets along a route approved by the City Engineer.

Port Arthur and Fort William Telephones.

The Board of Railway Commissioners has given judgment upon the application for compensation arising out of the cancellation of the Bell Telephone Co.'s exclusive right to enter the stations of the C.P.R. at Port Arthur and Fort William, Ont. Chief Commissioner Killam in giving judgment said it was clear, he thought, that compensation should be made to the railway company for the use of its stations by the towns for the purposes of their telephone system, and the interference with the railway company incident to establishing the instruments and connection therein. It was also clear that compensation should be made to the Bell Telephone Co. for the loss of exclusive privilege of telephone connection with the stations of the railway company in the two towns respectively. If the municipal system of these towns be installed under the authority of the statute, and the order of the Board, it will, he thought, be lawfully established, and the C.P.R. will not be liable for violation of the provision of the contract granting the exclusive privilege. For the loss of that right of action the Bell Telephone Co. should certainly be compensated. It had been argued that the establishment of the municipal telephone system in the stations of these two towns, or either of them, under an order of the Board, would be to void the contract between the railway company and the Bell Telephone Co.; that the contract was of considerable value to both companies, and that compensation should be paid in respect of it. Mr. Killam did not agree with the construction put upon the language of Mr. Blair, formerly Chief Commissioner, that the installation of the municipal system in the stations of Port Arthur and Fort William voided the contract ipso facto, but was of opinion that quite the opposite was intended. Correspondence took place between the Bell Telephone Co. and the C.P.R. in respect of the matter, and the Chief Commissioner expressed the opinion that no compensation should be given to the Bell Telephone Co. except for the damages which it will sustain through the loss of exclusive privileges in the towns of Port Arthur and Fort William, respectively. The position of the railway company is different. If the installation of the municipal system in one of the railway stations should result in the loss to the railway company of this contract it should receive compensation therefor. As to the basis of compensation the Chief Commissioner suggested that the rate of \$5 an instrument a year, which was estimated by an officer of the Bell Telephone Co. as the value of the exclusive right, be taken, and that the parties should arrive at the exact number of instruments furnished in each town respectively

for remuneration. As for the C.P.R. it should be stated on behalf of the towns that they desired a connection and that they should name some annual payment to be made to the railway company by either town for connection with the station in that town. If such offer be not accepted the best course would be to have the amount fixed by arbitration. If the municipality desired to contest the question of the effect of the installation of the municipal system, as giving to the Bell Telephone Co. a right of recession, a case could be stated to the Supreme Court. As to the possible loss to the railway company through recession of the contract by the telephone company, the Chief Commissioner finally concludes, "I think that the towns should only be required at the present time to give security for the making of such compensation as the Board shall herewith order. I would suggest that the joint and several bonds of the town for \$85,000, should be accepted as such security. If they are not willing to give the security, and wish first to have the decision of the Supreme Court upon the points raised, no order should go until this is given."

Prince Edward Island Telephones.

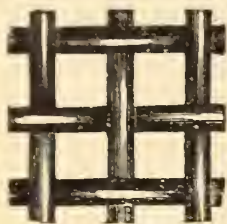
The Telephone Co. of Prince Edward Island, Ltd., has been in operation since 1885, and carries on business throughout the island province. It has a capital stock issue of \$56,700, and has no bonded indebtedness. Its head office is at Charlottetown, and W. A. Winfield is its General Manager. The population served is 103,259, which were supplied, on Mar. 1 of the current year, by 530 telephones, of which 420 were direct lines, having one instrument. There were 205 business and 130 residence telephones in Charlottetown; 32 business and 6 residence telephones at Summerside; 40 business and 5 residence telephones at other points. In addition there were about 100 toll offices throughout the island. The subscribers' circuits in Charlottetown and Summerside are part metallic, but largely common return; in smaller places all are single grounded circuits. The rates in force are: Charlottetown—separate lines, \$45 a year, business and residence; two party lines: business, \$30, residence, \$20. Summerside—business, \$20; residence, \$15. Other places, business or residence, \$12, with special rates for party lines, larger subscribers, etc. The company has the following long distance plant:—434½ miles of posts and 547½ miles of wire, all circuits being single grounded. The rates on these lines are: 10 miles, 15c.; over 10 miles, 25c., for five minutes' conversation, or 20 words message; subscribers being entitled to 20% discount. The company pays a dividend of 6% and sets aside 10% for depreciation; it has no surplus except its unexpended depreciation and accident fund. The system was changed in Charlottetown a few years ago from grounded to common return, and a beginning had been made to put in a metallic circuit. It is expected in the near future to put in a central energy switchboard. The company's lines serve the following points, exchanges and switching stations being at Charlottetown, Brush Wharf, Mount Stewart, Morell, St. Peter's Bay, Cardigan, Georgetown, Dundee, Souris, Montague, Murray River, Covehead, Hunter River, Rustico, Emerald, Malpeque, Summerside, Tyne Valley, Conway Station, O'Learys, Tignish, Crapaud, Tryon, Cape Bedeque; and toll stations at Southport, McKenzie's Corners, Pownall, Mount Albion, Vernon River, Vernon River Bridge, Orwell, Eldon, Pinnette, Flat River, Belle Creek, Wood Islands, Tracadie Cross, Fort Augustus, Webster's Corners, Lot 40; Peake's Station, New Perth, Lower Montague, Valleyfield, Little Sands, Murray Harbor North, Murray Harbor South, Cape Bear, Bridgetown, Annandale, Rollo Bay, Little York, Stanhope, St. Daivey, Tracadie,

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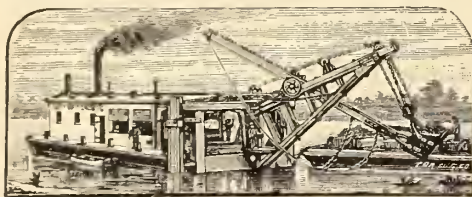
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PURCHASING AGENTS' GUIDE.

(Continued from third page of cover.)

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Contractors

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(Continued on page 391.)

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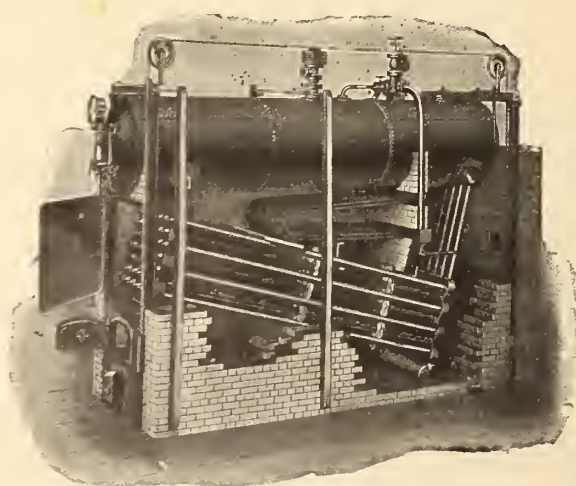
80 St. Francois Xavier St., Montreal

PURCHASING AGENTS' GUIDE.

(Continued from page 389.)

- Launches**
Polson Iron Works.....Toronto.
- Lights, Contractors' and Wrecking**
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
- Lithographing**
Rolph & Clark (Ltd.).....Toronto.
- Locomotive Boiler Washer, Automatic**
Erie Heating Co.....Chicago, Ill.
- Locomotive Driver Brake Shoe**
American Brake Shoe & F'dry Co...Mahwah, N.J.
- Locomotives (Compressed Air)**
Baldwin Locomotive Works....Philadelphia, Pa.
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.
- Locomotives (Electric)**
Baldwin Locomotive Works....Philadelphia, Pa.
Canada Foundry Co.....Toronto.
Locomotive and Machine Co. of Montreal.
- Locomotives (Logging)**
Canadian Locomotive Co.....Kingston, Ont.
Lima Locomotive and Machine Co...Lima, Ohio.
- Locomotives (Rack)**
Baldwin Locomotive Works....Philadelphia, Pa.
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.
- Locomotives (Steam)**
Baldwin Locomotive Works....Philadelphia, Pa.
Canada Foundry Co.....Toronto.
Canadian Locomotive Co.....Kingston, Ont.
F. H. Hicks & Co.....Chicago, Ill.
F. H. Hopkins & Co.....Montreal.
The W. H. Kelson Co.....Montreal.
Lima Locomotive and Machine Co...Lima, Ohio.
Locomotive and Machine Co. of Montreal.
- Locomotive Stack Netting**
The G. B. Meadows Wire, etc., Co.....Toronto.
- Locomotive Tile**
Garden City Sand Co.....Chicago, Ill.
- Machine Tools**
W. Abbott.....Montreal.
H. W. Petrie.....Toronto.
Williams & Wilson.....Montreal.
- Machine Screws, Set Cap and Planer**
John Morrow Machine Screw Co.....Ingersoll.
- Machinery, Marine**
Sheriffs Mfg. Co.....Milwaukee, Wis.
- Machinery Repairs, Marine**
Sheriffs Mfg. Co.....Milwaukee, Wis.
- Manganese Steel Castings**
Montreal Steel Works.....Montreal.
- Manhole Frames and Covers**
American Brake Shoe & F'dry Co...Mahwah, N.J.
- Maps**
Rolph & Clark (Ltd.).....Toronto.
- Marine Insurance**
Dale & Co.....Montreal.
- Mats and Matting**
The Canadian Rubber Co. of Montreal.
- Mechanical Draft Fans**
Babcock & Wilcox (Ltd.).....Montreal.
- Millpost Numbers**
Acton Burrows Co.....Toronto.
- Milling Cutters**
W. Abbott.....Montreal.
Williams & Wilson.....Montreal.
- Milling Machines**
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.
- Mills, Boring and Turning**
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.
- Mill Tools and Supplies**
J. A. Dawson & Co.....Montreal.
- Moulding Sand**
Garden City Sand Co.....Chicago, Ill.
- Nickel**
The Orford Copper Co.....New York.
- Nickel for Nickel Steel**
The Orford Copper Co.....New York.
- Numbers**
Acton Burrows Co.....Toronto.
- Nuts, Cold Pressed**
John Morrow Machine Screw Co.....Ingersoll.
- Nuts, Square and Hexagon**
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.
- Oakum**
The Hudson's Bay Company.....
- Office Desks**
Canadian Office & School Furniture Co., Preston, Ont.
- Office Fittings**
Canadian Office & School Furniture Co., Preston, Ont.
- Office Railings**
The G. B. Meadows Wire, etc., Co.....Toronto.
- Office Signs**
Acton Burrows Co.....Toronto.
- Oils**
Galena Signal Oil Co., Franklin, Pa., and Toronto.
- Packing**
The N. L. Piper Railway Supply Co.....Toronto.
Williams & Wilson.....Montreal.
- Packing, High Pressure Sheet**
The Canadian Rubber Co. of Montreal.
- Packing, Piston**
The Canadian Rubber Co. of Montreal.
- Paints, Acid Proof and Anti-rust**
American Asphaltum & Rubber Co...Chicago, Ill.
- Paints, Asphaltum**
American Asphaltum & Rubber Co...Chicago, Ill.
- Paints, Bridge**
American Asphaltum & Rubber Co...Chicago, Ill.
- Paints, Locomotive Front end**
American Asphaltum & Rubber Co...Chicago, Ill.
- Paints, Mineral Rubber**
American Asphaltum & Rubber Co...Chicago, Ill.
- Paints, Structural Iron**
American Asphaltum & Rubber Co...Chicago, Ill.
- Pinch Bars**
The N. L. Piper Railway Supply Co.....Toronto.
- Pipe**
Erie Heating Co.....Chicago, Ill.
- Pipe and Pipe Coverings**
W. C. Baker.....New York.
- Pipe Covering**
Mica Boiler Covering Co.....Montreal.
- Planers**
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.
- Ploughs, Contractors'**
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.
- Porter**
E. L. Drewry.....Winnipeg.
- Portable Boilers**
Babcock & Wilcox (Ltd.).....Montreal.
Canada Foundry Co.....Toronto.
Robb Engineering Co.....Amherst, N.S.
- Portland Cement**
Thorn Cement Co.....Buffalo, N.Y.
- Power Plants, Contractors'**
Erie Heating Co.....Chicago, Ill.
- Printing**
The Hunter, Rose Co.....Toronto.
The Mail Job Printing Company.....Toronto.
- Propeller Wheels**
W. Kennedy & Sons (Ltd.).....Owen Sound, Ont.
Sheriffs Manufacturing Co.....Milwaukee, Wis.
- Pumps**
Canada Foundry Co.....Toronto.
Erie Heating Co.....Chicago, Ill.
Goold, Shapley & Muir Co.....Brantford, Ont.
- Pumps (Centrifugal)**
M. Beatty & Sons.....Welland, Ont.
- Punches**
F. J. Myers Mfg. Co.....Hamilton, Ohio.
- Punching and Shearing Machines**
The John Bertram Sons Co.....Dundas, Ont.
- Rail Benders, Roller**
Montreal Steel Works.....Montreal.
- Rails (new)**
Drummond, McCall & Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.
- Rails (for relaying)**
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.
T. A. Morrison & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.
- Railway Equipment**
F. M. Hicks & Co.....Chicago, Ill.
- Railway Interlocking**
General Railway Signal Co.....Buffalo, N.Y.
- Railway Pile Drivers**
W. H. C. Mussen & Co.....Montreal.
- Railway Signalling**
General Railway Signal Co.....Buffalo, N.Y.
- Railway Supplies**
J. A. Dawson & Co.....Montreal.
The W. H. Kelson Co.....Montreal.
The N. L. Piper Railway Supply Co.....Toronto.
- Reamers**
W. Abbott.....Montreal.
- Refrigerators**
Geo. R. Prowse.....Montreal.
- Ribbons and Carbon Paper**
United Typewriter Co.....Toronto.
- Rivets, Boiler, Bridge and Structural**
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.
- Roller Wheels**
Standard Steel Works.....Philadelphia, Pa.
- Rolls, Plate Bending**
The John Bertram Sons Co.....Dundas, Ont.
- Roof Trusses**
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
- Roofing Composition**
American Asphaltum & Rubber Co...Chicago, Ill.
- Roofing Pitch**
American Asphaltum & Rubber Co...Chicago, Ill.
- Roofing, Ready**
American Asphaltum & Rubber Co...Chicago, Ill.
- Roofs, Car**
American Asphaltum & Rubber Co...Chicago, Ill.
- Rope**
The Hudson's Bay Co.....
- Rotary Snow Ploughs**
Crossen Car Mfg. Co.....Cobourg, Ont.
- Rubber Tiling, Interlocking**
The Canadian Rubber Co. of Montreal.
- Sand, White**
Garden City Sand Co.....Chicago, Ill.
- Saw Steel**
Montreal Steel Works.....Montreal.
- Scrapers (Wheel and Drag)**
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.
- Screws, Coach and Lag**
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.
- Semaphore Arms**
Acton Burrows Co.....Toronto.
- Semaphores**
The N. L. Piper Railway Supply Co.....Toronto.
- Sewer Pipe (Cast Iron)**
Gartshore-Thompson Pipe & F'dry Co...Hamilton.
- Shaking Grates**
Babcock & Wilcox (Ltd.).....Montreal.
- Shaping Machines**
The John Bertram Sons Co.....Dundas, Ont.
- Ship Lamps**
The N. L. Piper Railway Supply Co.....Toronto.
- Ships**
Canadian Shipbuilding Co.....Toronto.
Polson Iron Works.....Toronto.
- Shovels**
F. H. Hopkins & Co.....Montreal.
The Hudson's Bay Co.....
- Side Bearings**
Simplex Railway Appliance Co.....Montreal.
- Signal House Numbers**
Acton Burrows Co.....Toronto.
- Signals**
General Railway Signal Co.....Buffalo, N.Y.
N. L. Piper Railway Supply Co.....Toronto.
- Signs**
Acton Burrows Co.....Toronto.
- Slack Adjusters**
Chicago Railway Equipment Co.....Chicago, Ill.
- Slotting Machines**
The John Bertram Sons Co.....Dundas, Ont.
- Snow Ploughs**
Crossen Mfg. Co.....Cobourg, Ont.
Rhodes, Curry & Co.....Amherst, N.S.
- Specialties in Brass and Iron Wire**
The G. B. Meadows Wire, etc., Co.....Toronto.
- Speedicut High Speed Steel**
Montreal Steel Works.....Montreal.
- Spikes, Railway, Ship or Pressed**
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.
- Springs**
Montreal Steel Works.....Montreal.
Standard Steel Works.....Philadelphia, Pa.
- Station and Tower Heaters**
W. C. Baker.....New York.
- Stationery**
Rolph & Clark (Ltd.).....Toronto.
- Station Name Signs**
Acton Burrows Co.....Toronto.
- Steam Attachments for Car Heating**
W. C. Baker.....New York.
- Steam Couplers**
Safety Car Heating and Lighting Co...New York.
- Steam Hammers**
The John Bertram Sons Co.....Dundas, Ont.

Steam Shovels M. Beatty & Sons.....Welland, Ont. F. H. Hopkins & Co.....Montreal. W. H. C. Mussen & Co.....Montreal.	Tie Plates Montreal Rolling Mills Co.....Montreal.	Washers Montreal Rolling Mills Co.....Montreal.
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Steamships Canadian Shipbuilding Co.....Toronto. Polson Iron Works.....Toronto.	Tires Standard Steel Works.....Philadelphia, Pa.	Water Filters Geo. R. Prowse.....Montreal.
Steamship Signs Acton Burrows Co.....Toronto.	Tool Steel W. Jessop & Sons.....Sheffield, Eng. Montreal Steel Works.....Montreal.	Water Pipe (Cast Iron) Gartshore-Thompson Pipe & F'dry Co., Hamilton.
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Steel Buildings Canada Foundry Co.....Toronto. Canadian Bridge Co.....Walkerville, Ont. Dominion Bridge Co.....Montreal.	Track Tools F. H. Hopkins & Co.....Montreal. Montreal Steel Works.....Montreal. W. H. C. Mussen & Co.....Montreal.	Wheels, Car John McDougall & Co.....Montreal. Jas. W. Pyke & Co.....Montreal. Rhodes, Curry & Co.....Amherst, N.S. Standard Steel Works.....Philadelphia, Pa.
Steel for Springs James Hutton & Co.....Montreal.	Tracklaying Lorries Crossen Car Mfg. Co.....Cobourg, Ont.	Wheels, Locomotive John McDougall & Co.....Montreal.
Steel Plate Jas. W. Pyke & Co.....Montreal.	Tramway Equipment J. J. Gartshore.....Toronto.	Wheels, rolled, solid forged Standard Steel Works.....Philadelphia, Pa.
Steel, Nickel for Nickel The Orford Copper Co.....New York.	Trucks (Electric Car) Baldwin Locomotive Works.....Philadelphia, Pa. Canada Foundry Co.....Toronto. Montreal Steel Works.....Montreal.	Wheels, steel tired Standard Steel Works.....Philadelphia, Pa.
Steel Rolling Doors W. H. C. Mussen & Co.....Montreal.	Trucks (Railroad and Warehouse) Toronto Pressed Steel Co.....Toronto.	Windmills Ontario Wind Engine and Pump Co.....Toronto.
Steel Tyres James Hutton & Co.....Montreal. Jas. W. Pyke & Co.....Montreal.	Turbine Waterwheels W. Kennedy & Sons (Ltd.).....Owen Sound, Ont.	Wire and Wire Rope Dominion Wire Rope Co.....Montreal. The B. Greening Co.....Hamilton, Ont. W. H. C. Mussen & Co.....Montreal. The Wire and Cable Co.....Montreal.
Structural Metal Work Canada Foundry Co.....Toronto. Canadian Bridge Co.....Walkerville, Ont. Dominion Bridge Co.....Montreal. Locomotive and Machine Co. of Montreal. Jas. W. Pyke & Co.....Montreal.	Turnbuckles Montreal Steel Works.....Montreal.	Wire Cloth The B. Greening Co.....Hamilton, Ont. F. J. Myers Mfg. Co.....Hamilton, Ohio.
Superheaters Babcock & Wilcox (Ltd.).....Montreal.	Turntables Canada Foundry Co.....Toronto. Canadian Bridge Co.....Walkerville, Ont. Dominion Bridge Co.....Montreal.	Wire, Copper E. F. Phillips Electrical Works, Ltd.....Montreal. The Wire and Cable Co.....Montreal.
Switches Montreal Steel Works.....Montreal.	Typewriters United Typewriter Co.....Toronto.	Wire, Electric Canadian General Electric Co.....Toronto. E. F. Phillips Electrical Works, Ltd.....Montreal. The Wire and Cable Co.....Montreal.
Switch Lamps The N. L. Piper Railway Supply Co.....Toronto.	Typewriter Repairs United Typewriter Co.....Toronto.	Wire, Insulated Copper Canadian General Electric Co.....Toronto. E. F. Phillips Electrical Works, Ltd.....Montreal. The Wire and Cable Co.....Montreal.
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Axles

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Jas. W. Pyke & Co. Montreal.
Rhodes, Curry & Co. Amherst, N.S.

Babbitt

Williams & Wilson Montreal.

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Chicago Railway Equipment Co., Chicago, Ill.

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Poison Iron Works. Toronto.
Robb Engineering Co. Amherst, N.S.
Williams & Wilson Montreal.

Boilers, Internally Fired

Robb Engineering Co. Amherst, N.S.

Boilers, Portable

Babcock & Wilcox (Ltd.) Montreal.
Canada Foundry Co. Toronto.
H. W. Petrie Toronto.
Robb Engineering Co. Amherst, N.S.

Boilers, Stationary and Marine

Babcock & Wilcox (Ltd.) Montreal.
Canada Foundry Co. Toronto.
H. W. Petrie Toronto.
Robb Engineering Co. Amherst, N.S.

Boilers, Steam

Erle Heating Co. Chicago, Ill.
H. W. Petrie Toronto.

Boilers, Water Tube

Erle Heating Co. Chicago, Ill.

Boller Tubes

Jas. W. Pyke & Co. Montreal.

Bolsters

Simplex Railway Appliance Co. Montreal.

Bolts, Bridge

Canada Foundry Co. Toronto.
Montreal Rolling Mills Co. Montreal.
Toronto Bolt and Forging Co. Toronto.

Bolts, Carriage and Machine

Toronto Bolt and Forging Co. Toronto.

Bolts, Track

Canada Foundry Co. Toronto.
Montreal Rolling Mills Co. Montreal.
Toronto Bolt and Forging Co. Toronto.

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United Typewriter Co. Toronto.

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W. H. C. Mussen & Co. Montreal.

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American Brake Shoe & F'dry Co., Mahwah, N.J.

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Bridges

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Calendars

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Car Kitchen Equipments

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Car Lighting

Safety Car Heating and Lighting Co., New York

Car Movers

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(Continued on page 389.)

"PARIETTE" READY ROOFING

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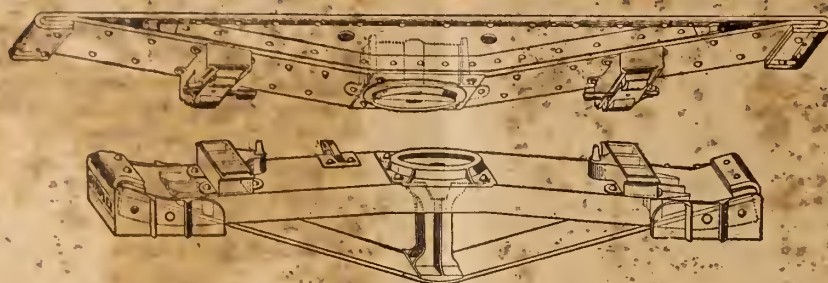
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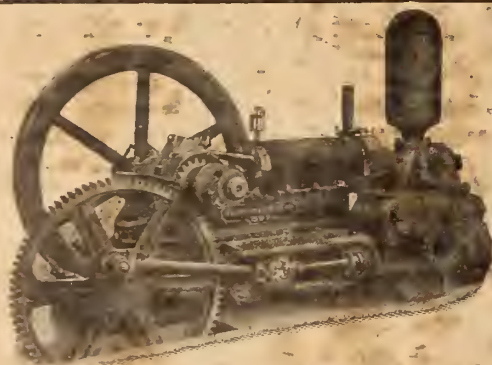


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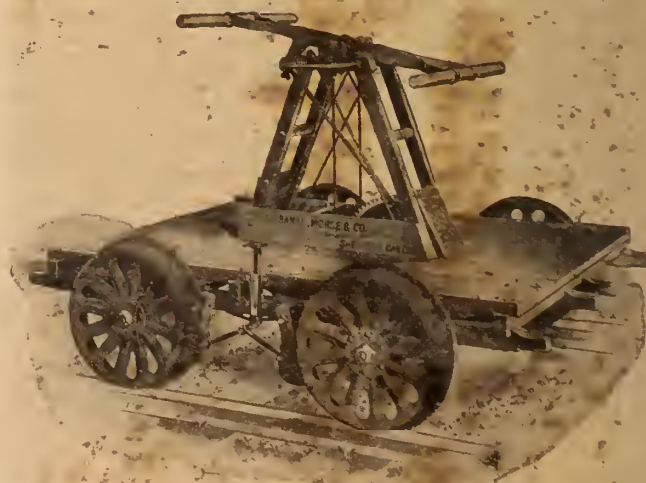
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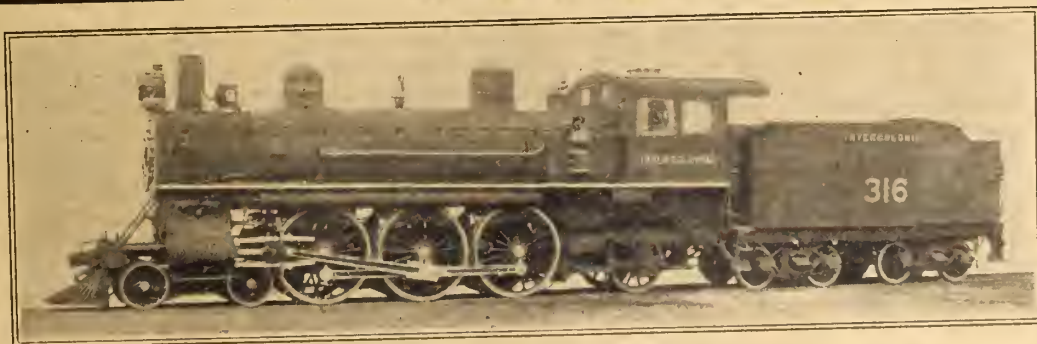
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(SEE ADVERTISEMENT ON PAGE 428)

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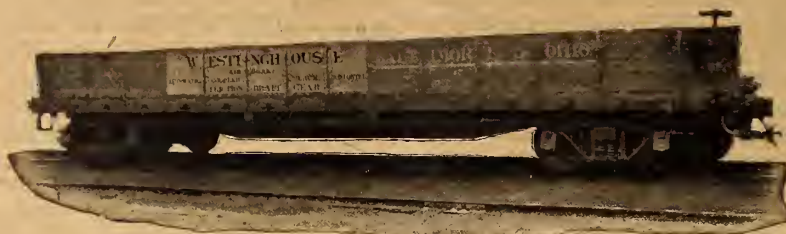
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TORONTO, CANADA, SEPTEMBER, 1905.

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Cartage Allowance Declared Illegal.

The Chief Railway Commissioner, A. C. Killam, K.C., gave the following judgment July 13, in the case of the Brant Milling Co. vs. the G.T.R. Co.:—This is an application to the Board for an order "allowing and instructing the G.T.R. Co. to continue" an allowance heretofore made by it to the milling company for the cost of cartage on flour and feed shipped from the company's mill to Portland, Me., and to Montreal and other eastern points in Canada.

The Brant Milling Co. is the business designation under which a milling business is carried on by A. J. Wood, at St. George, near Brantford, Ont. About 27 years ago his father, W. B. Wood, bought a small mill on the site of the present mills of the Brant Milling Co. It was a small grist mill for local business, from which no shipping was done. The nearest railway station was Harrisburg, some miles distant. Subsequently a station was established, by the name of St. George, about a mile from the mill. Shortly after the establishment of this station, W. B. Wood decided to endeavor to open up a shipping business for his products, and, learning that railway companies sometimes made allowances from their tariff rates of freight for the cost of carting the products from distant places of production, applied to the G.T.R. for such an allowance, and the company agreed to make him an allowance of 2c. per 100 lbs. on all flour and feed shipped from his mill by its line to Montreal and points east of Montreal in Canada, and to Portland for export. The business was successful, and from time to time the mill and the plant were increased and extended. At one time the railway withdrew the allowance for a few months, but subsequently, by letter dated Oct. 6, 1894, one of its officials wrote W. B. Wood that the question of allowance for cartage on the company's outward shipments of flour had been again fully considered, and that for the present and until further advised, the company would allow 2c. per 100 lbs. in lieu of cartage, on outward shipments from St. George to points on the G.T.R., Toronto and east; also to Lower Province points, and on flour for export, via Montreal or Portland in connection with the railway company's steamship lines, but refusing the allowance on certain other routes. About six years ago, W. B. Wood took his son, A. J. Wood, into partnership, and about two years ago W. B. Wood withdrew from the firm, when A. J. Wood became and still remains the sole owner of the business.

On Oct. 19, 1904, the Freight Traffic Manager of the G.T.R. wrote to the Brant Milling Co. that, in view of a recent decision of the Board of Railway Commissioners, it would not be practicable to continue the cartage allowance. The present application was

the result of this letter. The decision referred to is said to have been that reported in 3 Can. Ry. Cases, under the name of no. 124—The Manufacturers' Coal Rates Case—refusing an application of the G.T.R. to be allowed to continue, in favor of manufacturers, a difference in the rate of freight on bituminous coal, of 10c. a ton, between certain points on its line, as compared with that charged to dealers or consumers. Such a course was held by the Railway Commission to be contrary to sec. 252 of the Railway Act, 1903, requiring that railway "tolls shall always,

machinery too extensive and expensive for a merely local business. It is also claimed by the milling company that the allowance made does not nearly cover the expense to which the company is put for cartage from the railway station to the mill of grain to be ground for export, and of the product to the railway station. Evidence was given in support of these claims, but full inquiry into the question of the actual cost of the cartage, as compared with the allowance, was deferred until it should be determined whether this was material to the application.

As stated by Blackburn, J., in *G.W.R. Co. v. Sutton*, L.R. 4 H.L., at pg. 237, "At common law a person holding himself out as a common carrier of goods was not under any obligation to treat all customers equally. The obligation which the common law imposed upon him was to accept and carry all goods delivered to him for carriage according to his profession (unless he had some reasonable excuse for not doing so) on being paid a reasonable compensation for so doing; and if the carrier refused to accept such goods, an action lay against him for so refusing; and if the customer, in order to induce the carrier to perform his duty, paid, under protest, a larger sum than was reasonable, he might recover back the surplus beyond what the carrier was entitled to receive in an action for money had and received as being money extorted from him. But the fact that the carrier charged others less, though it was evidence to show that the charge was unreasonable, was no more than evidence tending that way. There was nothing in the common law to hinder a carrier from carrying for favored individuals at an unreasonably low rate, or even gratis. All that the law required was that he should not charge any more than was reasonable." Pg. 238. "I think it appears from the preamble of the 90th sec. of the Railways' Clauses Consolidation Act, 1845, that the legislature was of opinion that the changed state of things arising from the general use of railways made it expedient to impose an obligation on railway companies acting as carriers beyond what is imposed on a carrier at common law." Pg. 239. "The mode of establishing that the

demand is extortionate differs in two cases. Where it is sought to prove that the charge is unreasonable, and therefore extortionate, the fact that another was charged less is only material as evidence for the jury tending to prove that the reasonable charge was the lower one. When it is sought to show that the charge is extortionate as being contrary to statutable obligation to charge equally, it is immaterial whether the charge is reasonable or not, it is enough to show that the company carried for some other person or class of persons at a lower charge during the period



M. J. BUTLER, L.L.B., C.E.,

Deputy Minister and Chief Engineer of Railways and Canals.

under substantially similar conditions and circumstances, be charged equally to all persons, and at the same rate," and that "no reduction or advance in any such tolls shall be made, either directly or indirectly, in favor of or against any particular person or company travelling upon or using the railway."

On behalf of the Brant Milling Co., it is claimed that this allowance is absolutely necessary to the continuance of its business and that the withdrawal of this concession renders the business of the company unprofitable and involves the practical destruction of the business and the loss of buildings and

(Continued on page 397.)

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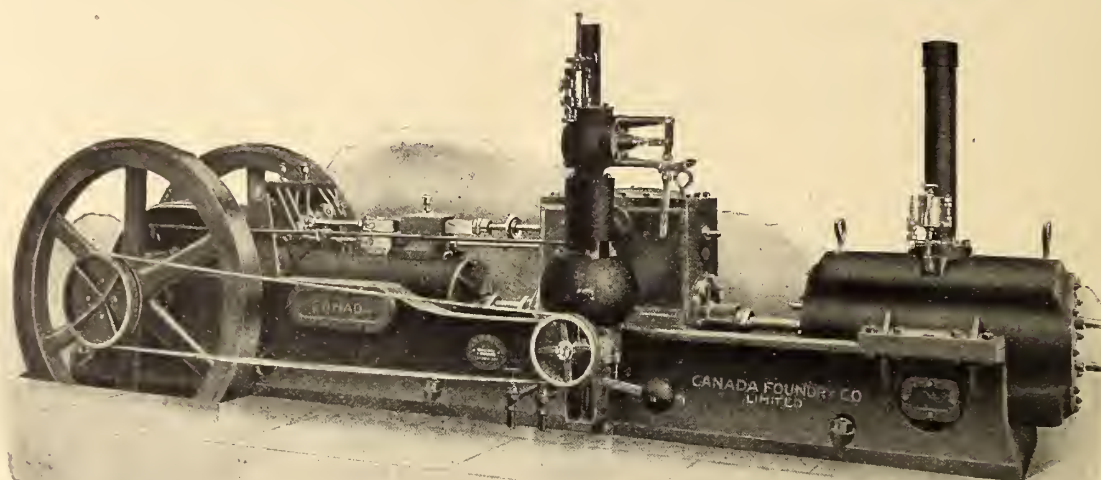
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Cartage Allowance Declared Illegal.*(Continued from page 393.)*

throughout which the party complaining was charged more under the like circumstances." As to the position at common law, see also *Oxlade v. N.E.R. Co.*, 1 C.B. (N.S.) 454, and *Baxendale v. E.C.R. Co.*, 4 C.B. (N.S.) 63.

The proviso at the end of sec. 90 of the R.C.C. Act, 1845, was: "Provided that all such tolls be at all times charged equally to all persons, and after the same rate, whether per ton, per mile, or otherwise, in respect of all passengers, and of all goods or carriages of the same description, and conveyed or propelled by a like carriage or engine, passing only over the same portion of the line of railway under the same circumstances; and no reduction or advance in any such tolls shall be made either directly or indirectly in favor of or against any particular company or person travelling upon or using the railway." In England it has been decided that the words "under the same circumstances" in this proviso refer to the conveyance or passing of the goods, etc., over the line. See *G.W.R. Co. v. Sutton*, L.R. 4 H.L. 226; *Evershed v. L. & N.W.R. Co.*, 28 Q.B.D. 254, 3 Q.B.D. 134, 3 A.C. 1029; *Denaby Main Colliery Co. v. M.S. & L.R. Co.*, 14 Q.B.D. 209, 11 A.C. 97; *Phipps v. L. & N.W.R. Co.*, (1892) 2 Q.B.D. 229.

By act of the 49th Congress of the U.S.A., 2nd Sess., Chap. 104, intitled "An Act to regulate commerce," usually known as the "Interstate Commerce Act," sec. 2, it is provided: "That if any common carrier subject to the provisions of this act shall, directly or indirectly, by any special rate, rebate, drawback, or other device, charge, demand, collect or receive from any person or persons a greater or less compensation for any service rendered, or to be rendered, in the transportation of passengers or property, subject to the provisions of this act, than it charges, demands, collects, or receives from any other person or persons for doing for him or them a like kind of traffic under substantially similar circumstances and conditions, such common carriers shall be deemed guilty of unjust discrimination, which is hereby prohibited and declared to be unlawful." Under that act a wider view seems to have been taken in the Courts of the U.S. than was taken in England under the Act of 1845, respecting the circumstances and conditions which are to be taken into consideration. See *Cincinnati, New Orleans and Texas Pacific Ry. Co. v. Interstate Commerce Commission*, 162, U.S., p. 184, 56 Fed. Rep. 925; *Interstate Commerce Commission v. Alabama Midland Ry. Co.*, 3 Am. & Eng. R. Cas. N.S. 638; *Texas & Pacific Ry. Co. v. Interstate Commerce Commission*, 162 U.S. p. 197, 5 Am. & Eng. R. Cas. N.S. 86; *Detroit, etc., R. Co. v. Interstate Commerce Commission*, 74 Fed. Rep. 803; *Interstate Commerce Commission v. Cincinnati P. & V.R. Co.*, 32 Am. & Eng. R. Cas. N.S. 581; *Lanrel Cotton Mills v. Gulf & S.I.R. Co.*, 37 So. Rep. 134, 35 Am. & Eng. R. Cas. N.S. 471.

By the Canadian Railway Act, sec. 251, sub-sec. 4, "no tolls shall be charged by the company until a by-law authorizing the preparation and issue of tariffs of such tolls has been approved by the Board, nor shall the company charge, levy or collect any money for any service as a common carrier, except under the provisions of this act."

Sec. 252, sub-sec. 1: "Such tolls may be either for the whole or for any particular portions of the railway; but all such tolls shall always, under substantially similar circumstances and conditions be charged equally to all persons, and at the same rate, whether by weight, mileage or otherwise, in respect of all traffic of the same description and carried

in or upon a like kind of cars, passing over the same portion of the line of railway; and no reduction or advance in any such tolls shall be made, either directly or indirectly, in favor of or against any particular person or company travelling upon or using the railway." Sub-sec. 3. "No tolls shall be charged which unjustly discriminate between different localities."

By sec. 253, sub-sec. 1. "And no company shall make or give any undue or unreasonable preference or advantage to, or in favor of, any particular person, or company, or any particular description of traffic, in any respect whatsoever." Sub-sec. 2. "The Board may determine, as questions of fact, whether or not traffic is or has been carried under substantially similar circumstances and conditions, and whether there has, in any case, been unjust discrimination, or undue or unreasonable preference or advantage, or prejudice or disadvantage, within the meaning of this Act, or whether in any case the company has, or has not, complied with the provisions of this and the last preceding section; and may by regulation declare what shall constitute substantially similar circumstances and conditions, or unjust or unreasonable preferences, advantages, prejudices, or disadvantages within the meaning of this Act, or what shall constitute compliance or non-compliance with the provisions of this and the last preceding section."

Sec. 254, sub-sec. 1. "Whenever it is shown that any company charges one person, company or class of persons, or the persons in any district, lower tolls for the same or similar services, than they charge to other persons, companies, or class of persons, or to the persons in another district, or makes any difference in treatment in respect of such companies or persons, the burden of proving that such lower tolls or difference in treatment does not amount to an undue preference or an unjust discrimination shall lie on the company."

Sub-sec. 2. "In deciding whether a lower toll, or difference in treatment, does or does not amount to any undue preference or an unjust discrimination, the Board may consider whether such lower toll, or difference in treatment, is necessary for the purpose of securing in the interests of the public, the traffic in respect of which it is made, and whether such object cannot be attained without unduly reducing the higher tolls."

By sec. 257, sub-sec. 1, "The Board may disallow any tariff or any portion thereof which it considers to be unjust or unreasonable, or contrary to any of the provisions of this act, and may require the company, within a prescribed time, to substitute a tariff satisfactory to the Board in lieu thereof, or may prescribe other tolls in lieu of the tolls so disallowed."

By sec. 259 the tariff of tolls which the company is authorized to issue under the act is divided into three classes, namely:—"The maximum mileage tariff, herein referred to as the standard freight tariff; the reduced class or commodity tariffs, herein referred to as the special freight tariffs; and competitive tariffs."

By sec. 261, sub-sec. 1, "Every standard freight tariff shall be filed with the Board, and shall be subject to the approval of the Board." Sub-sec. 4. "When the provisions of this section have been complied with, and except in the cases of special freight and competitive tariffs, the tolls as specified in the standard freight tariff or tariffs, as the case may be, shall be the only tolls which the company is authorized to charge for the carriage of goods."

By sec. 262, sub-sec. 3, "Upon any such special tariff being so filed, the company shall, until such tariff is superseded or is disallowed by the Board, charge the toll or tolls as specified therein."

The language of sec. 252 is that "all such tolls shall always, under substantially similar circumstances and conditions be charged equally to all persons." Here, the words "under substantially similar circumstances and conditions" are connected with and qualify the words "be charged," while in the English act, as we have seen, the words "under the same circumstances" directly refer to and qualify the words "passing only over the same portion of the line of railway"; and, in the U.S. act, the words "under substantially similar circumstances and conditions" are directly connected with and appear to refer specifically to the words "transportation of a like kind of traffic."

Our act then leaves it open to consider, in reference to the making of charges, all circumstances and conditions that appear applicable, whether directly relating to the carriage or the service given by the railway company or not. Further, the direction that these tolls shall always, under substantially similar circumstances and conditions, be charged equally to all persons appears to be absolute. Preferences may be allowed if they are not unjust or unreasonable, but only when the circumstances or conditions differ substantially. The whole frame of the Act points to equality as requisite and to discrimination as forbidden, and the equality is to be preserved and the discrimination avoided, not only as between individuals, persons or companies, but also as between localities. And the company is also forbidden not merely to charge higher than the authorized tolls, but equally to charge lower ones.

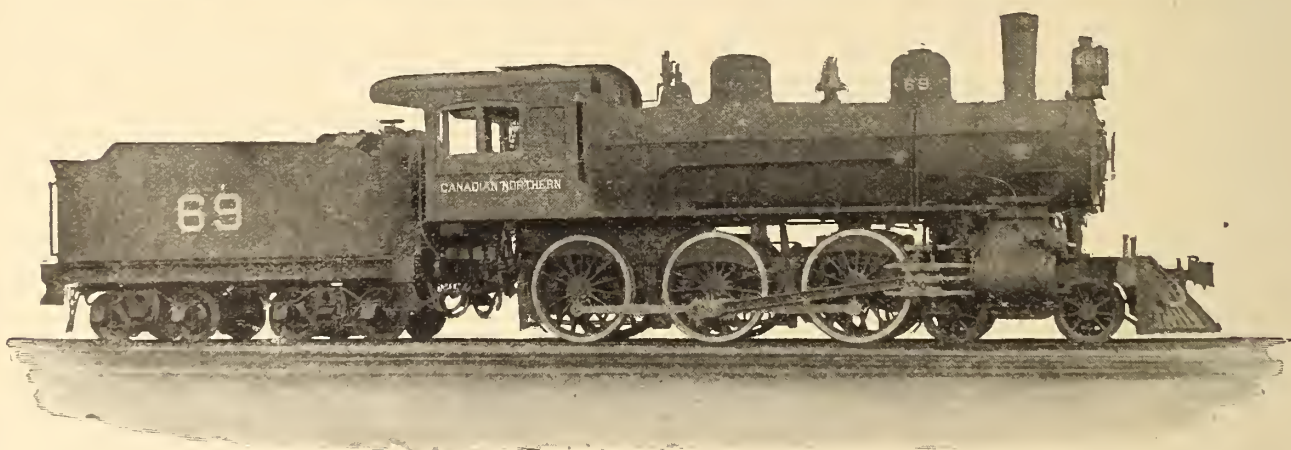
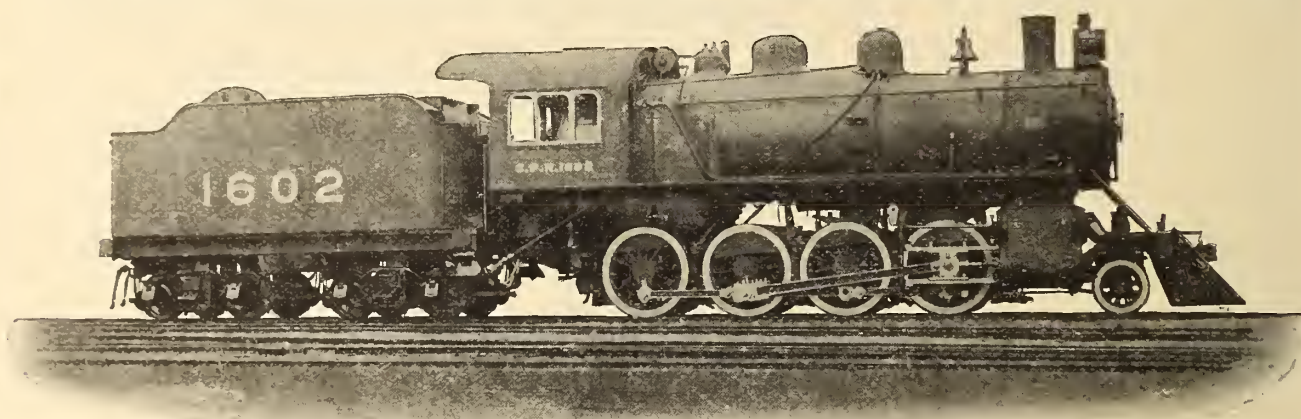
So far then as the applicant company asks that the railway company be authorized or directed to make in its favor the reduction previously made upon the regular tolls laid down in its authorized tariff, the application must clearly fail. If there are circumstances or conditions warranting the charging of less or higher tolls in particular classes of cases, these must be provided for in the railway company's tariffs. In so far as the applicant company can be considered as asking the Board to make a change, in its favor alone, in the tariff of tolls to be charged for transportation of its class of products, the application again must fail. Such an act would involve a discrimination without reason as against those shipping similar goods at the same railway station and providing at their own expense for their cartage, whether for a greater or less distance, however short that distance might be, as well as against other localities.

In *Stone v. Detroit, G.H. & M.R. Co.*, 3 Inters. Com. Rep. 60, where a railway company had a tariff schedule grouping eastern points at Ionia and Grand Rapids in Michigan, Ionia being the shorter distance, and furnished free cartage at Grand Rapids and not at Ionia, it was held by the Interstate Commerce Commission of the U.S. that the free cartage at Grand Rapids was in effect a rebate and unlawful. Cooley, chairman, said: "The effect of the respondent doing the cartage at its own cost of 2c. per 100 lbs. is precisely the same that it would be if all its rates to Grand Rapids were 2c. per 100 lbs. less and the consignees were left to pay the cost of cartage. But if that were done the Ionia rates would clearly be illegal, because they would be 2c. per 100 lbs. more than the Grand Rapids rates. So if the rates to the two towns were made the same, but the Grand Rapids consignees were allowed a rebate of 2c. per 100 lbs. because of their greater distance from the railroad warehouse, the illegality would seem to be equally obvious." Morrison and Shoonmaker, Commissioners, said: "Nominally receiving a full rate with one hand and paying part of it back with the other, either in money or its equivalent in service, is plainly, whether so intended or not, a device that works an

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evasion of the law, and continues a practice that is now unlawful. It results in the carrier getting less than the tariff rate for its service, and is therefore unlawful."

In *Hezel Milling Co. v. St. Louis A. & T. H.R. Co.*, 3 Inters. Com., Rep. 701, Veasey, Commissioner, said: "For the carrier to pay the larger expense of transportation of a remote shipper's merchandise to the station and not to pay the less expense of the nearer shipper's merchandise, would be the equivalent of a rebate to the former, the railroad service proper being the same to each, and at the same rate."

In the matter of divisions of joint rates and other allowances to terminal railroads, 10 Inters. Com., Rep. 661, where it appeared that a certain company transported its less than carload freight from East St. Louis to a railway station at St. Louis, and was allowed for it the same rates as were paid by the railway company for transfers by transportation companies from their depots in East St. Louis to St. Louis, the language of the Commission was: "No opinion is expressed as to whether lines leading west from St. Louis may properly apply the St. Louis rate to the station of a bona fide transfer company in East St. Louis and absorb the cost of transfer to its depot in St. Louis. Neither is an opinion expressed as to whether these same carriers might, if they saw fit by proper schedules, allow all shippers from East St. Louis a fixed sum per hundred pounds for transporting their merchandise to the receiving depot of the carrier in St. Louis. These questions are not presented by this record. So far as appears from the tariffs referred to in the statement of facts, the St. Louis rate is only applied at the depots of connecting railway lines or of transfer companies. No way is provided under these tariffs by which the shipper at East St. Louis can avoid the expense of draying his goods from his storehouse to the depot. When, therefore, the western line allows the Grant Chemical Co. 5c. per 100 lbs. for bringing its goods across the river, that being full compensation for the service, this is not only a clear violation of law as a departure from the printed tariff and the payment of a rebate, but is also a manifest discrimination in favor of that company as against its competitor who must dray his goods from the storehouse to the receiving depot in East St. Louis."

There is nothing unjust or unreasonable in a railway company charging the Brant Milling Co. the same rates as other shippers for goods transported from its St. George station to other points; in fact, it would be unreasonable for the Commission to compel a railway company to charge less to the Brant Milling Co. than to other companies for exactly the same service in order to compensate the Brant Milling Co. for any greater expense to which it might be put in hauling its goods to the station. W. B. Wood, of his own volition, purchased a mill at a considerable distance from a railway station. While he may have been induced by the cartage allowance to invest greater capital and enlarge his mill to a greater extent than the business of the locality itself warranted, no definite promise or agreement was made to or with him that the allowance would be continued for any particular period of time. On the contrary, the letter of Oct., 1894, expressly stated that the allowance was to be "for the present and until further advised." The language of Morrison and Shoonmaker, Commissioners, in *Stone v. D.G.H. & M.R. Co.*, supra, is applicable: "The fact that the practice existed prior to the law and was in use to some extent by other carriers does not aid its lawfulness. It never was general, but at most only an exceptional practice, and its lawfulness is to be determined not by former or even present use, but by the provisions of the act."

The only method by which, as it seems to me, any such allowance could hereafter be properly made by the railway company to the Brant Milling Co. would be under special tariff providing either for free cartage from the railway stations to consignees' premises, or by allowances in lieu thereof, made in such a way as to be general in character for all goods, or specified classes of goods, and framed in such a way as not to discriminate between different localities. In my opinion no order should be made upon the present application.

This judgment was concurred in by Deputy Chief Commissioner Bernier.

Interswitching at London.

The Chief Railway Commissioner, A. C. Killam, K.C., recently delivered the following judgment, Deputy Chief Commissioner Bernier concurring:—The C.P.R. Co. has applied to the Board for an order directing the G.T.R. Co. to afford proper facilities for the interchange of traffic between the said companies over the branch authorized by order of July 6, 1904, to be constructed by the G.T.R. from a point on its line between London, Ont., and St. Mary's to the C.P.R. line between London and Toronto, and fixing the amounts to be charged for such interchange of traffic and the interswitching of cars over the said branch. The lines of the two railways in the city of London before the construction of this branch were at a considerable distance apart. Their only present connection at or near London is by this branch, which is 4,800 ft. long. The railway lines now operated by the G.T.R. in and through the city of London were in existence long before the C.P.R. was constructed. The G.T.R. has extensive terminal properties at that point, including a large number of sidings to various business and manufacturing premises, and a considerable number of team tracks upon which cars are loaded or unloaded. The company has an extensive business at that point. The terminal facilities and business of the C.P.R. at London are small as compared with those of the G.T.R. By means of the branch mentioned, the railway cars can be taken to and from a large number of business premises in London to which the C.P.R. has heretofore not had direct access. The advantages which the C.P.R. can offer to the G.T.R. in this respect at and near London are very small as compared with those which this connection will afford to the C.P.R. On this account it is urged that, in the division of rates for traffic interchanged by this branch between the two companies, a very large proportion should be assigned to the G.T.R., much greater than that which would be a fair remuneration for the mere service to be rendered by the G.T.R. in the transportation of cars over this branch and its London terminal lines, and the loading and unloading of the same.

By sec. 253 of the Railway Act, 1903, "all companies shall, according to their respective powers, afford to all persons and companies all reasonable and proper facilities for the receiving, forwarding and delivering of traffic upon and from their several railways, for the interchange of traffic between their respective railways and for the return of rolling stock. . . . ; and every company which has or works a railway forming part of a continuous line of railway, with, or which intersects any other railway, or which has any terminus, station or wharf near to any terminus, station or wharf of any other railway, shall afford all due and reasonable facilities for delivering to such other railway, or for receiving from and forwarding by its railway all the traffic arriving by such other railway without any unreasonable delay, and without any such preference or advantage, or prejudice or disadvantage, as aforesaid,

and so that no obstruction is offered to the public desirous of using such railways as a continuous line of communication, and so that all reasonable accommodation, by means of the railways of the several companies, is at all times afforded to the public in that behalf; and any agreement made between any two or more companies contrary to this section shall be unlawful and null and void."

By sec. 271, "The facilities to be afforded as required by sec. 253 shall include the due and reasonable receiving, forwarding and delivering by the company, at the request of any other company, of through traffic, and in the case of goods shipped by carload of the car with the goods shipped therein, to and from the railway of such other company, at a through rate, and also the due and reasonable receiving, forwarding and delivering by the company, at the request of any person interested in through traffic, of such traffic at through rates."

Sec. 266 provides for the making of joint tariffs by agreement between companies whose railways provide a continuous route.

Sec. 267 enables the Board to require railway companies to agree upon and file a joint tariff satisfactory to the Board, or that the Board "may, by order, determine the route, fix the toll or tolls, and apportion the same among the companies interested and may determine the date when the toll or tolls so fixed shall come into effect, and traffic shall be carried by the companies in accordance therewith"; and by sub-sec. 3, "In any case where there is a dispute between companies interested as to the apportionment of a through rate in any joint tariff, the Board may apportion such rate between such companies."

With the progress of invention, new enterprises are continually supplanting or injuring old ones to the ruin or loss of those interested in the former. Railways have not only directly affected in this way former modes of transportation, but they have also been instrumental in building up particular localities or enterprises at the expense of others. It has never been the policy of the law to afford compensation for losses thus occasioned. When the legislature authorizes the construction of new lines of railway in competition with those formerly existing, this is not done with a view to benefit the promoters of the new lines or to injure those interested in the old ones, but solely for the public good. The provisions of the Railway Act which require railway companies thus to interchange traffic at connecting points are introduced, not for the purpose of benefiting one railway company at the expense of another, but solely in the interest of the public. The law cannot recognize anything in the nature of a good-will of the business of either railway company thus affected for which another should give compensation. In my opinion the division between railway companies of the joint rates for tariff thus interchanged should be made upon the principle of giving reasonable compensation for the service and facilities furnished by the respective companies in respect of the particular traffic thus interchanged, and not by reference to the magnitude of the business of one company or the other at particular points or the respective advantages which each can offer to the other there, or a comparison of the loss which the one is likely to sustain with the gain likely to accrue to the other from the giving of the facilities which the law requires.

It has also been urged on behalf of the G.T.R. that the Board should deal with this question of the division of such rates or the allowance of charges for interswitching in a general way and by reference to all the points in Canada where the railways of these two companies connect. It does not appear to me that this can properly be done. I think that in each case the nature and value of the

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service to be rendered and the facilities to be used must be taken into consideration. With this in view, the Board sent its Chief Traffic Officer to look over the situation in London and give to the Board an estimate of the amounts which should be apportioned to the G.T.R. for the services to be rendered by it in the interchange of traffic over this line and the facilities which will thus be placed at the disposal of shippers and consignees of freight in London. After having examined the locality and considered the information acquired in this way, as well as that supplied by the answers of the respective companies to questions framed by the representatives of the G.T.R., the Traffic Officer has made a report, upon which, in my opinion, the Board should act.

It is clear, I think, that the G.T.R. is obliged to furnish, for the carriage over its portion of the continuous line, for the receipt and delivery of the same and for the loading and unloading of cars for the purpose, the same facilities as in respect of traffic passing over its own lines only, or transferred to or by it at distant points of the C.P.R., and the apportionment of the rates should be deemed to be made upon this basis. There should be an order requiring the G.T.R. to afford all reasonable and proper facilities for receiving, forwarding and delivering all traffic offered to it in cars wholly or partially loaded for passage over the branch in question and its lines connected therewith and of unloaded cars so offered and of freight offered to it for carriage to and over the lines of the C.P.R. by the medium of the said branch, and for the interchange by means of the said branch, of traffic between its lines and those of the C.P.R., as well as between the lines of the C.P.R. and those of other railway companies connecting with the lines of the G.T.R. The order should provide that the rates to be charged for such traffic shall be those provided for by any joint tariffs in existence between the railway companies interested, and, in the event of there being none, the rates charged by the G.T.R. between the same points, and, in the absence of either, the rates charged by the C.P.R. between the same points; also, that in the division of rates for such traffic, the G.T.R. shall be entitled to charge and receive the following tolls for switching freight and live stock traffic, in earloads, from and to the C.P.R. at or near London by means of the said branch, namely:—(a) Between the point of connection of the G.T.R. interchange track and the C.P.R. siding, and all delivery tracks and sidings owned or controlled by, or connecting with, the lines of the G.T.R. between and including the Canadian Packing Co.'s plant on the east and the London Street Ry. interchange, known as Springbank siding, on the west, except as provided in clause "b": I.e. per 100 lbs., but not less than \$5 per carload, for each complete haul in either direction; no extra charge to be made for the movement of the empty car in the opposite direction. (b) For the intermediate switching of through or joint freight and live stock traffic between the points of connection designated in clause "a" and the point of connection of the G.T.R. with the Pere Marquette Rd., \$3 per car, in either direction, regardless of the weight; no extra charge to be made for the transfer of the returning empty car. The order should also provide that all devices, such as free or assisted cartage or cartage allowances intended to equalize the facilities of the respective railways of the C.P.R. and the G.T.R., for the collection and delivery of freight at or near London, except the customary system of cartage published in the freight tariffs of the respective companies be prohibited, and that all reference, prejudice and discrimination in such cartage system be prohibited. The order should provide for its coming into force forthwith.

Freight Rate Orders.

The following order has been issued by the Board of Railway Commissioners, in the matter of the complaint of the Dominion Millers' Association, under the Railway Act, 1903, to the Board in re-rates of flour and other grain products charged by the G.T.R. and the C.P.R.:—

(1) That, so long as the companies owning or operating railway lines in Ontario find it convenient and expedient to continue the prevailing system of computing their rates to the Canadian and United States Atlantic seaboard, on freight traffic for export, on the basis of percentages of the coexistent rates from Chicago to New York, or until otherwise ordered by the Board, the said companies shall, for the station groupings and percentages previously adopted, and now in use, substitute the following station groupings, and the following maximum percentages of the Chicago to New York rates, namely:—

Group No.	
1.	Toronto to King, Kleinburg, Waterloo, Galt, Paris, Brantford and Jarvis, and the Niagara peninsula: East of Toronto to Lindsay, Lakefield, Madoc, Kingston and Sharbot Lake.....70%
2.	North and west of Group 1 to Bobcaygeon, Kilmount, Cobocook, Sutton, Orillia, Alliston, Shelburne, Grand Valley, Fergus, Elmira, St. Mary's, London, St. Thomas and Port Stanley.....73%
3.	North and west of group 2 to Haliburton, Midland, Penetanguishene, Collingwood, Proton, Listowel, Mount Forest, Harriston, Goderich and the St. Clair and Detroit rivers.....78%
4.	North and west of Group 3 to Gravenhurst, Meaford, Markdale, Durham, Elmwood, Dunkeld, Teeswater and Wingham.....82%
5.	North of Group 4 to Emsdale, Owen Sound, Wiarton, Southampton and Kincardine.....85%
6.	North of Emsdale to and including North Bay.....90%

(2) That when, as now, the rates to Montreal on export freight traffic from Chicago, Detroit, Port Huron and intervening points are lower than the rates in effect on the same traffic, at the same time, from the same points, to New York, then at least the same difference shall exist between the export rates from Ontario points to Montreal and the rates in effect on the same traffic, at the same time, from the same points, to New York, the rates to Montreal to be the lower; and the ordinary summer class and commodity rates to Montreal (city) shall not be exceeded on export traffic, on which the said rates shall be subject to sec. 252, sub-sec. 3, of the Railway Act, 1903, as modified by sec. 268, sub-sec. 4.

(3) That, to Montreal, the rates from Toronto may, as maxima, be applied from points east as far as, and including, the Whitby-Manilla-Lindsay line, east of which line to and including the Cobourg-Hastings-Norwood line, the rates shall be 5% less than from Toronto; and east of the said Cobourg-Hastings-Norwood line to and including Belleville, Ivanhoe and Madoc, 10% less than from Toronto. From stations east of Belleville, Ivanhoe and Madoc, the rates to be graded down as in the tariffs at present in force.

(4) Transfer and harbor charges at the port of exportation shall be treated as has been, or may be, customary, and without discrimination as between ports, or between shippers or localities.

(5) That the announcement and publication of rate changes shall not be timed to the disadvantage of Canadian shippers.

(6) That the provisions of this order are to cover all export traffic, including grain and grain products.

The railway companies affected have applied for a rehearing on the alleged ground that the rates ordered are unreasonably and unnecessarily low and in some respects impractical. On Aug. 25, we were advised that the commissioners had consented to rehear the case.

Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:—

Granting permission to the St. Henri, Que., city council to appeal to the Supreme Court against the order of the Board dated May 1, giving the G.T.R. power to expropriate lands in Montreal belonging to St. Henri. (June 17.)

Directing the C.P.R. to instal and maintain an automatic electric bell at its crossing of the public highway at Milford, N.B., on the application of the city and county of St. John. (July 7.)

Directing the C.P.R. to erect and operate gates and maintain a day and night watchman at its crossing of Main St., Fairville, N.B., on the application of the city and county of St. John. (July 7.)

Approving of the location of the line of the Klondike Mines Ry. from Dawson City to Klondike City, Yukon Territory. Mileage 0 to mileage 0.89. (July 10.)

Authorizing the Canadian Machine Telephone Co. to carry its wires across the tracks of the G.T.R. in Peterboro, Ont., according to plans filed, and conditions appended. (July 11.)

Approving of the location of the C.P.R. for a line from Molson to St. Boniface, Man., 36 miles. (July 12.)

Authorizing the municipality of St. Andrews, Man., to construct a highway crossing at rail level of the West Selkirk branch of the C.P.R. (July 14.)

Authorizing the C.P.R. to construct a branch to the Canadian Elevator Co.'s elevator at Morris, Man. (July 14.)

Authorizing the C.P.R. to construct a branch to the Griswold Milling Co.'s elevator at Griswold, Man. (July 17.)

Authorizing a change in the location of the G.T. Pacific Ry.'s Lake Superior branch, between mileage 3.81 from Kakabeka, Ont., easterly for a distance of 11.56 miles; and from mileage 2.84 west of Kakabeka, for a distance of 31.8 miles, from the previously deposited plans. (July 17.)

Granting permission to S. D. Stevens, Hawkesbury, Ont., to maintain a telephone line across the Canada Atlantic Ry. tracks at that place on terms agreed upon. (July 17.)

Authorizing a deviation from the constructed line of the C.P.R. MacGregor branch from near mileage 37 to Varcoe, Man., near mileage 54. (July 17.)

Authorizing the C.P.R. to construct an additional track across the highway in Melancthon township, Dufferin county, Ont. (July 17.)

Approving location plan and profile of the Calgary and Edmonton Ry.'s Lacombe branch from mileage 28 to mileage 100.5, Alberta. (July 18.)

Varying the Board's order of June 21, respecting the projected branch line of the Canada Atlantic Ry. in Ottawa, by striking out paragraph 5, and substituting a new one restricting the operation of trains over the branch to between 7 a.m. and 1 p.m. (July 18.)

Authorizing the G.T.R. to construct within two years a branch line from the town plot of Brooke, Ont., to the works of the Grey and Bruce Portland Cement Co., near Brooke. (July 18.)

Approving of the location plan and profile of the C.P.R. proposed line from Wolseley to Reston, Man., 122.39 miles. (July 18.)

Approving location plan and profile of the Nepigon Ry. to the end of the 5th mile (July 18.)

Approving of the connection of the G.T.R. branch line in London, Ont., with the C.P.R. there, and authorizing the opening of the branch for traffic. (July 18.)

Authorizing the Tilsonburg, Lake Erie and Pacific Ry. to construct a branch from its

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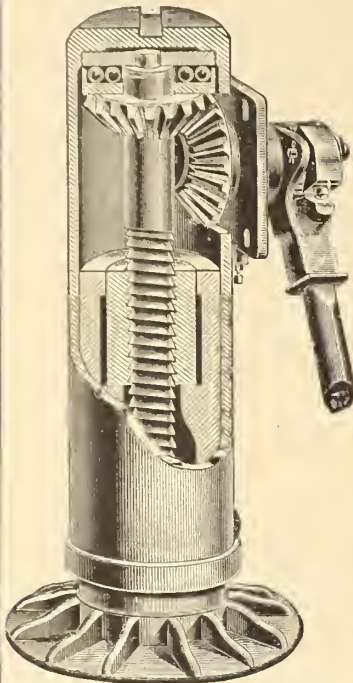
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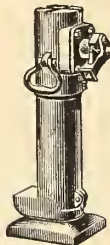
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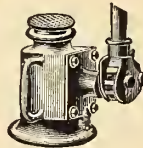
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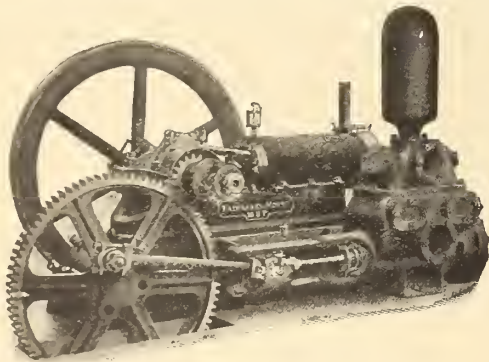
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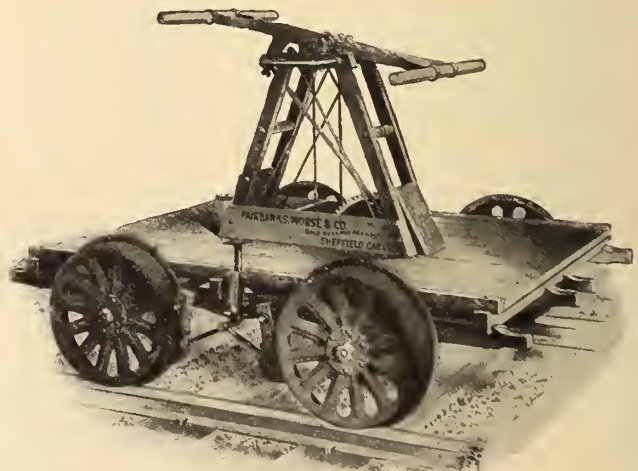
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present terminal at Port Burwell, Ont., across Otter Creek, to the most southerly point of the company's property there. (July 19.)

Approving detail plans of a bridge over the Klondike River at Dawson City, Yukon Territory; and plans and specifications for standard pile and framed trestles for the Klondike Mines Ry. (July 19.)

Authorizing the Chatham, Ont., city council to carry water mains under the G.T.R. tracks in that city on terms agreed upon. (July 19.)

Authorizing the Ontario Pipe Line Co., to carry gas mains under the G.T.R. tracks in Hamilton, Ont., according to plans filed, and conditions agreed upon. (July 19.)

Approving location plan and profile for a line from Golden to Canal Flats, B.C., 103.4 miles for the Kootenay Central Ry. (July 19.)

Approving detail plans for the reconstruction of bridges on Ray, Pearl, Poulette and Garth streets, Hamilton, Ont., for the Toronto, Hamilton and Buffalo Ry., and approving of the reduction of the width of the bridges to 32 ft., 32 ft., 37 ft. and 36 ft. respectively. (July 19.)

Authorizing the James Bay Ry. to lay its tracks at grade level across the G.T.R. Sutton branch, on lot 21, con. 8, township of East Gwillimbury, York county, Ont., subject to the provision of specified safety devices by the J.B. Ry. (July 21.)

Authorizing the Lachine, Que., town council to carry two electric light wires across the G.T.R. tracks in Lachine, subject to specified conditions. (July 21.)

Authorizing the St. Catharines and Niagara Power Co. to lay gas mains under the G.T.R. in St. Catharines, Ont., as shown on plans, and on conditions specified. (July 21.)

Authorizing the G.T.R. to lay an additional track across Main St., and two additional tracks across Queen St., Palmerston, Ont., the additional crossings to be provided by watchmen. (July 21.)

Granting permission to DeW. Carter to lay gas mains under the G.T.R., at seven points of the G.T.R. in Port Colborne, Ont., according to plans filed, and subject to specified conditions. (July 22.)

Authorizing the Quebec Bridge and Ry. Co. to construct an under crossing of the public road in St. Foye parish, Que., upon certain conditions contained in a resolution passed by St. Foye municipal council, May 20. (July 25.)

Approving station sites for the James Bay Ry. (July 26.)

Approving location plan and profile of the Ontario Northern and Temagami Ry., from Sturgeon Falls, Ont., for a distance of 4.17 miles. (July 26.)

Approving station sites for the Guelph and Goderich Ry. (July 27.)

Authorizing the closing of a level crossing of the G.T.R. near Penetanguishene, Ont., the substitution thereof of an overhead bridge, and the necessary diversion of the public highway. (July 27.)

Authorizing change of location of the G.T. Pacific Ry. from mileage 40.94 west of Kakabeka, Ont., for 47.24 miles westerly, from previously deposited plans. (July 27.)

Authorizing the Bell Telephone Co. to erect telephone wires and cables across the Canada Atlantic Ry. half a mile west of Moose Creek station, Ont., according to specifications attached. Similar orders were also made respecting the crossing of the C.A.R. tracks at St. Polycarpe, Ont.; near Vars., Ont.; 75 yards west of Moose Creek, Ont., and at Casselman station, also on the application of the Bell Telephone Co. (July 28.)

The Robb Engineering Company is building two 200 horse power Robb-Mumford boilers for the Cumberland Railway & Coal Company, Springhill, N.S.

September Birthdays.

Many happy returns of the day to—

W. D. Barclay, ex-Manager, Alberta Ry. & Coal Co. and Great Falls and Canada Ry., now a contractor, St. Paul, Minn., born at Campbellton, N.B., Sept. 23, 1852.

G. T. Bell, General Passenger and Ticket Agent, G.T.R., Montreal, born there Sept. 7, 1861.

W. H. Biggar, K.C., General Solicitor, G.T.R., Montreal, born at the Carrying Place near Trenton, Ont., Sept. 19, 1852.

E. R. Bremner, Assistant General Freight Agent, Canada Atlantic Ry., Ottawa, born in Toronto, Sept. 9, 1875.

M. H. Brown, General Freight Agent, Ontario Division C.P.R., Toronto, born at Victoria Square, Ont., Sept. 2, 1866.

F. R. F. Brown, ex-Mechanical Superintendent, Intercolonial Ry., now at Montreal, born at Helensburg, Dumbartonshire, Scotland, Sept. 29, 1845.

W. G. Brownlee, Superintendent, G.T.R., Eastern Division, Toronto, born at Lawrenceville, Ill., Sept. 9, 1858.

J. R. Bruce, Traffic Auditor, Intercolonial Ry., Moncton, N.B., born at Portsoy, Banffshire, Scotland, Sept. 23, 1848.

W. B. Bulling, Assistant Freight Traffic Manager, Eastern Lines C.P.R., Toronto, born in Montreal, Sept. 16, 1858.

R. L. Burnap, General Freight Agent, Central Vermont Ry., St. Albans, Vt., born Sept. 20, 1872.

A. D. Cartwright, Secretary Board of Railway Commissioners, Ottawa, born at Kingston, Ont., Sept. 20, 1864.

G. B. Colpas, Auditor, New York and Ottawa Rd., and Ottawa & New York Ry., Ottawa, Ont., born Sept. 28, 1858.

W. F. Egg, ex-City Passenger Agent, C.P.R. at Montreal, born at Plymouth, Eng., Sept. 7, 1859.

A. W. Ecclestone, Southern Passenger Agent, Central Vermont Ry., New York, born at Hamilton, Ont., Sept. 25, 1858.

Hon. H. R. Emmerson, M.P., Minister of Railways and Canals, Ottawa, born at Maugetville, N.B., Sept. 25, 1853.

F. A. Folger, jr., General Superintendent, Kingston & Pembroke Ry., Kingston, Ont., born Sept. 17, 1865.

C. B. Foster, District Passenger Agent, C.P.R., Toronto, born at Kingston, N.B., Sept. 30, 1871.

L. A. Hamilton, ex-Land Commissioner, C.P.R., born at Penetanguishene, Ont., Sept. 30, 1852.

L. B. Howland, President and General Manager, Irondale, Bancroft & Ottawa Ry., Irondale, Ont., born at Lambton Mills, Ont., Sept. 2, 1869.

G. R. Huntingdon, General Superintendent, Minneapolis, St. Paul & Sault Ste. Marie Ry., Minneapolis, Minn., born Sept. 1, 1867.

J. Hone, jr., City Passenger and Freight Agent, C.P.R., Quebec, born in Montreal, Sept. 8, 1873.

J. E. Hutcheson, Superintendent, Ottawa Electric Ry., Ottawa, born at Brockville, Ont., Sept. 15, 1858.

A. C. Killam, K.C., Chairman Board of Railway Commissioners for Canada, Ottawa, born at Yarmouth, N.S., Sept. 18, 1849.

W. H. Kelson, ex-General Storekeeper, C.P.R., born at Bath, Eng., Sept. 5, 1850.

S. B. Kramer, Master of Transportation, G.T.R., Montreal, born at Maryland, Sept. 25, 1865.

R. E. Larmour, Freight Claims Agent, Pacific Division, C.P.R., Vancouver, B.C., born at Brantford, Ont., Sept. 26, 1868.

H. D. Lumsden, C.E., Chief Engineer National Trans-Continental Ry., Ottawa, born at Belhaire, Scotland, Sept. 7, 1844.

J. Bruce Macdonald, Director Niagara Navigation Co., born at Glengarry, Ont., Sept. 15, 1850.

G. A. Mountain, Engineer, Board of Railway Commissioners for Canada, Ottawa, Ont., born at Quebec, Sept. 28, 1860.

J. F. Mundie, City Freight Agent C.P.R., Montreal, born at Prescott, Ont., Sept. 20, 1857.

E. D. Nash, Assistant Superintendent Southern Division Central Vermont Ry., New London, Conn., born at Shelburne Falls, Mass., Sept. 24, 1852.

J. Osborne, General Superintendent, Eastern Division, C.P.R., Montreal, born there Sept. 19, 1861.

E. D. Parker, Assistant General Freight Agent, Minneapolis, St. Paul & Sault Ste. Marie Ry., St. Paul, Minn., born at Granville, Ohio, Sept. 20, 1839.

Jno. Paul, General Freight Agent, Niagara, St. Catharines and Toronto Ry., born in Euphrasia tp., Grey County, Ont., Sept. 13, 1858.

W. D. Robb, Superintendent of Motive Power, G.T.R., Montreal, born at Longueuil, Que., Sept. 21, 1857.

W. H. Rosevear, General Car Accountant, G.T.R., Montreal, born at Wadebridge, Cornwall, Eng., Sept. 26, 1837.

F. M. Spaidal, Superintendent, C.P.R., Montreal, born at Gananoque, Ont., Nov. 13, 1858.

D. Sutherland, General Freight Agent, Newfoundland Ry., St. John's, Nfld., born at Niagara Falls, Ont., Sept. 21, 1873.

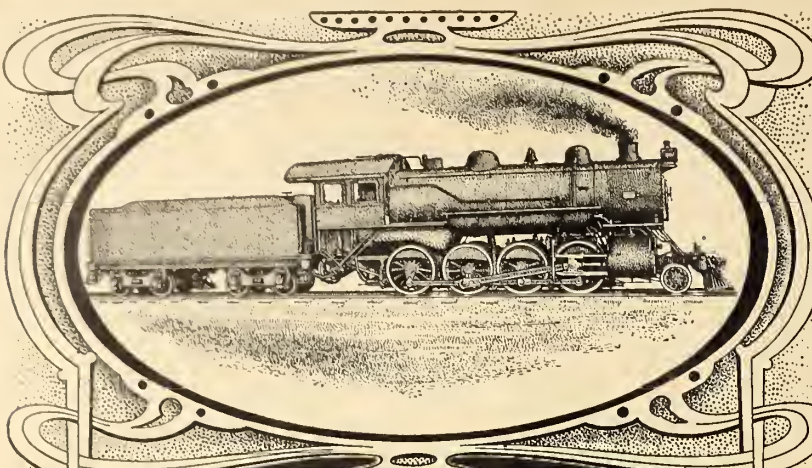
W. R. Tiffin, Superintendent, Northern Division, G.T.R., Allandale, Ont., born at Hamilton, Ont., Sept. 1844.

W. Whyte, 2nd Vice-President, C.P.R., Winnipeg, Man., born at Charleston, Scotland, Sept. 15, 1843.

American Association of General Baggage Agents.—The annual convention was recently held at Cleveland, Ohio, when the following representing Canadian lines were present:—G.T.R., J. E. Quick, Toronto, Secretary-Treasurer; Intercolonial Ry., G. C. Allen, Moncton. The Secretary-Treasurer consented to act as the Association's representative at the meeting of the American Association of General Passenger and Ticket Agents in Mexico. A number of matters affecting the work of baggage agents were discussed and resolutions passed. The officers for 1904-05 were elected, J. E. Quick being re-elected Secretary-Treasurer; and Los Angeles, Cal., was selected as the meeting place for the next convention.

An advance of about 10% has been made in freight rates on the Intercolonial Ry., between non-competitive points, but, we are informed, that it is not of any great moment, as the previously existing rate was a very low one.

The Canadian Freight Association was organized Oct. 25, 1883, by 18 representatives of the then leading railways of Canada, only nine of whom now survive. John Porteous, of the G.T.R., was duly elected president, and held office for five years, 1883 to 1887 inclusive. His successors in the presidency were as follows: T. Tandy, G.T.R., 1888-1889; G. M. Bosworth, C.P.R., 1890-1891; J. Earls, G.T.R., 1892-1893; E. A. Chittenden, Central Vermont Rd., 1894; J. Burton, G.T.R., 1895; J. N. Sutherland, C.P.R., 1896; J. J. Wallace, Intercolonial Ry., 1897; C. J. Smith, Canada Atlantic Ry., 1898; J. W. Loud, G.T.R., 1899; W. B. Bulling, C.P.R., 1900; W. Woollatt, Lake Erie & Detroit River Ry., 1901; J. Pullen, G.T.R., 1902; W. P. Hinton, Canada Atlantic Ry., 1903; C. Howe, Michigan Central Rd., 1904; W. R. MacInnes, C.P.R., 1905. The Association now comprises about 90 active and 30 honorary members, representing a good majority of all the railway and inland steamship companies of Canada.



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THE CANADIAN PACIFIC RAILWAY COMPANY have 12,000,000 acres of choice farming lands for sale in Manitoba, Assiniboia, Saskatchewan and Alberta. Manitoba lands and Assiniboia lands east of third meridian, \$4.00 to \$10.00 per acre according to quality and location. Lands in South-Western Assiniboia and Southern Alberta, \$3.50 to \$8.00 per acre. Ranching lands generally \$3.50 to \$4.00 per acre. Northern Alberta and Saskatchewan lands generally \$6.00 to \$8.00 per acre. Maps showing the lands in detail will be sent free on application.

TERMS OF PAYMENT.

An actual settler may purchase not more than 640 acres, on the ten instalment plan by paying a cash instalment at time of purchase, interest at six per cent. on the unpaid purchase money at the end of the first year, and the balance of the principal with interest in nine equal instalments annually thereafter as shewn in the following table:—

160 Acres at \$3.50 per acre, cash payment \$83.90, first year's interest \$28.58 and nine instalments of \$70.00	
" " 4.00 " " 95.85, " " " 32.64 " " 80.00	
" " 4.50 " " 107.85, " " " 36.73 " " 90.00	
" " 5.00 " " 119.85, " " " 40.81 " " 100.00	
" " 5.50 " " 131.80, " " " 44.89 " " 110.00	
" " 6.00 " " 143.80, " " " 48.98 " " 120.00	

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

DISCOUNT FOR CASH.

If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. on five-sixths of the purchase money.

Interest at six per cent. will be charged on overdue instalments.

F. T. GRIFFIN,

Land Commissioner C.P.R. Co., Winnipeg.

CANADA NORTH-WEST LAND CO.

This Company has 750,000 acres of selected lands in Manitoba and Assiniboia which offer excellent opportunities to settlers and investors who desire to secure good lands in well-settled districts. These lands are on sale at the Company's Office at Winnipeg, and at the various land agencies of the Canadian Pacific Railway Company.

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Canadian Northern Ry. Earnings, etc.

Gross earnings for June, \$388,000; expenses, \$254,200; net earnings, \$134,700 against \$207,600 gross; \$208,300 working expenses, and \$89,300 net earnings for June, 1904. Gross earnings for twelve months ended June 30, \$3,871,800; net earnings \$1,260,900 against \$3,124,800 gross, and \$1,006,800 net for same period 1903-04.

Gross earnings, working expenses, net profits, increases or decreases over 1904-05, from July 1, 1905:

Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July.. \$395,100	\$ 252,600	\$ 142,500	\$ 51,400+
Mileage in operation, 1,876 against 1,399.			

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1903-04, from July 1, 1904:—

Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July \$4,398,833.95	\$2,949,181.81	\$1,449,652.14	\$1,125.02+
Aug. 4,474,237.04	2,946,307.21	1,527,929.83	93,827.93+
Sept. 4,420,876.03	2,952,683.47	1,468,192.56	66,541.75+
Oct. 4,743,961.93	3,177,848.02	1,566,113.91	87,913.10+
Nov. 4,751,970.43	3,082,395.69	1,669,574.74	191,593.56+
Dec. 4,562,142.45	2,809,473.62	1,662,668.83	81,523.57+
Jan. 3,252,501.93	2,829,833.46	422,668.47	65,016.44+
Feb. 3,056,094.05	2,753,922.73	302,171.32	219,630.51+
Mar. 4,132,961.50	2,950,134.46	1,182,827.04	331,972.76+
April 4,229,144.50	2,697,338.29	1,531,806.21	119,273.61+
May. 4,229,131.47	2,841,196.59	1,387,934.88	3,630.10+
June 4,430,026.37	2,927,093.44	1,502,932.93	53,021.48+

\$50,481.88±25\$35,006.793.79\$15,475.088.46\$1,261,983.43+
+Increase. —Decrease.

Approximate earnings for July, \$4,548,000 against \$4,316,000 for July, 1904.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for June, \$255,036.05; net earnings, \$63,325.06 against \$228,274.76 gross and \$74,705.17 net for June, 1904. Net earnings for twelve months ended June 30, \$854,230.93, against \$777,155.95 for same period, 1903-04. Approximate earnings for July \$254,311 against \$235,761 for July, 1904.

MINERAL RANGE RY.—Approximate earnings for July, \$59,559, against \$56,134 for July, 1904.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for June, \$790,849.21; net earnings, \$376,323.16, against \$651,828.70 gross and \$317,307.80 net for June, 1904. Net earnings for twelve months ended June 30, \$4,214,014.25 against \$3,246,717 for same period 1903-04. Approximate earnings for July, \$746,541 against \$757,744 for July, 1904.

Canadian Pacific Railway Land Sales.

	Acres.		Amount.	
	1905.	1904.	1905.	1904.
July..	58,477.37	36,425.75	\$304,795.23	\$117,473.94

Grand Trunk Ry. Earnings, Expenses, etc.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1905.	1904.	Increase.	Decrease.
Jan	\$2,556,340	\$2,253,378	\$302,962	....
Feb.	2,163,683	1,649,525	514,158	....
Mar.	2,911,267	2,649,779	261,488	....
April....	2,850,125	2,838,946	11,179	....
May.....	2,969,486	3,119,126	....	149,640
June	3,063,836	3,013,149	50,687	....
	\$16,514,737	\$15,523,903	\$990,834	....

The following has been issued by the London, Eng., office:—

Subject to audit, the accounts for the half-year to June 30, show the following results:

Gross receipts.....	£2,729,000
Working expenses.....	1,923,400
Net receipts.....	£ 805,600
Net revenue charges for the half year, less credits.....	510,200
Balance.....	£ 295,400
Deduct Detroit, Grand Haven and Milwaukee Ry. deficiency for the half-year.....	10,400
Surplus.....	£ 285,000

This surplus of £285,000 added to the balance of £6,600 from Dec., 1904, makes a total amount of £291,600 available for dividend, which will admit of the payment of the dividends for the half-year on the 4% guaranteed stock and first and second preference stocks, leaving a balance of about £7,400 to be carried forward. The accounts of the Grand Trunk Western Ry. for the year ended June 30, show a surplus sufficient to provide for the interest on the first mortgage bonds, and leave a balance of about £2,800.

TRAFFIC RECEIPTS OF THE SYSTEM.

	1905.	1904.	Increase.	Decrease.
Aggregate from July 1 to July 31:				
Grand Trunk..	£ 619,791	£ 517,491	£ 102,300	....
G. T. Western	81,252	74,878	6,374	....
D. G. H. & M.	28,512	26,771	1,741	....
Total.....	£ 629,565	£ 619,140	£ 10,425	....

RAILWAY DEVELOPMENT.**Projected Lines, Surveys, Construction, Betterments, Etc.**

Alaska Central Ry.—This line is projected from Seward, at the head of Resurrection Bay, in the Kenai peninsula, about the middle of the southern coast of Alaska, northerly to the Tanana River, at or near Fairbanks. The total distance is about 460 miles, and it is intended to construct a branch from the head of Knik Arm, about 120 miles from Seward, to the coal fields in the valley of the Matanuska River, about 15 miles. The completion of the line to Knik Arm will give access to the valley of the Susitna River and will afford an easy route to all points in central Alaska. The line is being constructed to standard gauge and in a substantial manner. The line has a maximum gradient of 2%, and the track is being laid with new 65-lb. steel. At the time the present directorate was organized about 30 miles of line had been partially completed; this has been almost entirely reconstructed, and is being operated. Supplies, including rails, are on the ground or in transit for an additional 60 miles of line, which it is hoped to complete this season. The work is being done under the charge of the company's engineers, contracts being let as required. According to the latest advices about 1,500 men are employed on construction work. The company has acquired 380 acres of land on Resurrection Bay, upon which it is proposed to lay out large terminal yard, freight sheds, round house, shops, etc. It also owns the docks at Seward, at which vessels drawing 30 ft. of water can lie. A commodious office building is being erected at Seward at a cost of \$50,000, and houses are being built for the engineers and heads of departments by the company. The preliminary surveys have been completed on the entire route to the Tanana River, which is a tributary of the Yukon River, and navigable for light draught steamers. Location surveys have been completed for 50 miles ahead of the construction gangs, and eight engineering parties are in the field engaged on further location.

The executive offices of the company are at 108 La Salle St., Chicago, Ill., the purchasing and accounting departments at Seattle, Wash., and the engineering and construction departments at Seward, Alaska. Following are the officers and directors:—President, A. C. Frost, Chicago, Ill.; Vice-President, H. C. Osborne, Toronto; Secretary, J. A. Haight, Seattle, Wash.; Treasurer, G. L. Francis, Toronto; Chief Engineer and General Manager, W. B. Poland, late Superintendent Baltimore and Ohio Southwestern Rd., Seward, Alaska; other directors: G. Turner, O. G. Larabee, Spokane, Wash.; J. E. Ballaine, Seattle, Wash.; F. R. Thompson, Montreal. The surveys are in charge of G. A. Kyle, formerly District Engineer G.T. Pacific Ry., Winnipeg, Man.; the construction work is under J. B. Cameron, formerly of the Baltimore and Ohio Rd.; F. Brown, formerly Assistant Purchasing Agent Baltimore and Ohio Rd., is Purchasing Agent, and J. R. VanCleve, heretofore Master Mechanic White Pass and Yukon Ry., is Master Mechanic. (Aug., pg. 349.)

Atlantic, Quebec and Western Ry.—A trust deed dated June 26, between the A., Q. and W. Ry. Co., the New Canadian Co., and J. M. Sing, of Liverpool, Eng., Hon. C. M. Knatchbull-Hugessen, and G. Elliott, of London, Eng., securing an issue of 5% bonds of the A., Q. and W. Ry. Co., on account of construction has been filed with the Secretary of State at Ottawa. (June, pg. 241.)

Cape Breton Coal, Iron and Ry. Co.—The

company has completed its line from Homeville Junction, on the Sydney and Louisburg Ry., to the collieries at Broughton, N.S., about three miles. The engineers in charge of construction are — Henniger, of Sydney, and — Case, at Broughton, and the contractors are T. Cozzolino, and McDonald and Ferguson. It is proposed to extend the line to Sydney and Louisburg, but nothing has been definitely decided as to when this will be done. Coal shipping piers will be erected, probably at Louisburg. In this connection representatives of the company have looked over the land acquired at Louisburg by the Cape Breton Ry., and it is considered very likely that that company's line from Point Tupper to St. Peter's, and the charter rights to extend the line from St. Peter's to Louisburg will be purchased. Negotiations are in progress with the Cape Breton Ry. Co. for the purchase.

At Broughton the company is laying out a town site, and erecting a summer hotel. The collieries are being opened up by means of three slopes, with the object of securing an output of 1,000 tons a day. A steel bank-head with steel carhaul are being constructed. The machinery includes compressors, Babcock and Wilcox boilers, etc. An electric light plant is also being installed. (Aug., pg. 349.)

Detroit River Tunnel.—The Canada and Michigan Bridge and Tunnel Co. has been amalgamated with the Michigan and Canada Bridge and Tunnel Co., under the name of the Detroit River Tunnel Co. The officers and directors of the new company are: President, W. H. Newman, New York; Vice-President, H. B. Ledyard, Detroit, Mich.; Treasurer, C. F. Cox, New York; other directors: W. K. and F. W. Vanderbilt, C. M. Depew, S. F. Barger, H. McK. Twombly, H. Russel, of New York; N. Kingsmill, K.C., W. P. Torrance, of Toronto. Secretary, D. W. Pardee, New York.

The following circular has been issued in connection with the construction of the tunnel, by W. H. Newman, President Michigan Central Rd.:—The construction of the Detroit tunnel line from Windsor, Ont., to West Detroit yard, Mich., including the electrification thereof, is placed in charge of an advisory board of engineers consisting of W. J. Wilgus, Vice-President of the New York Central and Hudson River Rd.; H. Carson, Consulting Engineer, and W. S. Kinnear, Chief Engineer of the Tunnel Co. The Chief Engineer will be in direct charge of construction, reporting to H. B. Ledyard, Chairman of the Board of Directors, on executive and financial matters, and to the board of advisory engineers as to plans, specifications and methods of doing the work. (July, pg. 281.)

Esquimalt and Nanaimo Ry.—We are advised that at the present time the company has a number of survey parties at work making an examination of the land grant, but that until their reports are received it is impossible to say what extensions it will be desirable to make to provide for its development. At the present time the company has not any engineering parties in the field making surveys for proposed extensions of the line. This work is under the supervision of J. S. Dennis, C.P.R. Land Commissioner for British Columbia. (Aug., pg. 349.)

Guelph and Goderich Ry.—The Board of Railway Commissioners has approved of station sites at the following points: Weisenburg, mileage 5.7 from Guelph; Elmira, mileage 16; Wallenstein, mileage 20; Linwood, mileage 24.8; Millbank, mileage 30.2; Milverton, mileage 34.5; Mornington, mileage 37.3; Monerick, mileage 43.4; Walton, mileage 56; Blyth, mileage 63.6; Auburn, mileage 69; Colborne, mileage 74.5.

Tracklaying has been commenced at the Guelph end of the line, and rails have been

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THE PINTSCH LIGHT AWARDED THE GRAND PRIZE ST. LOUIS, 1904

In the United States 170 railroads have equipped over 25,500 cars with Pintsch Light. In the World more than 135,000 cars, 6,000 locomotives and 1,800 buoys are using Pintsch Light, the test of experience having proven it the most economical, safe and reliable system for car lighting. Pintsch Gas Buoys adopted as standard by the United States Lighthouse Board. Highest awards taken at World's Expositions at Moscow, Vienna, St. Petersburg, London, Berlin, Paris, Chicago, Atlanta, Buffalo, and now St. Louis.

SAFETY HEATING SYSTEMS RECEIVED THE HIGHEST AWARD

Practical service for the past 18 years has demonstrated the reliability, efficiency and adaptability of the Safety Systems of Direct Steam and Hot Water Heating which are being applied in large quantities to railroad equipment. Straightport couplers. Automatic Steam Traps. 140 Railroads are using these devices, applied on 16,000 cars. Standard on Pullman cars.

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delivered at Goderich for that end of the line. A Goderich press representative recently went over the line from that end as far as the Manchester bridge, and reports the grading nearly all completed, and the bridge work well advanced. (Aug., pg. 351.)

Halifax and Southwestern Ry.—A plan and description of the site and side elevation of a proposed fixed railway bridge at the crossing of the Jordan River, Shelburne, N.S., has been filed, and application has been made for an Order-in-Council approving of the plan and location. (July, pg. 281.)

Intercolonial Ry.—A contract has been let to W. Kitchen, Fredericton, N.B., for the erection of two new bridges and the construction of a short piece of line to do away with some curves near St. Leonards Jet., and Mitchell, Que. It is expected that the work will be completed by the fall.

In connection with the projected work upon the line between Indiantown and Blackville, N.B., with a view of putting it in order for operation, we are advised that nothing has so far been done. The sum of \$25,000 has been voted by Parliament for the work.

An extension will be built on the north side of the existing train shed at St. John, N.B., to take in another track, making four under cover, instead of three as at present. This extension will be of steel columns resting on concrete piers, spaced about 16 ft. centres, the sides being left open. Every other window in the existing wall will be replaced by doors, providing access to and from cars standing on track in the extension with main building. The existing baggage room on the south side of the train house will be enlarged, making it twice its present capacity; the new addition will be carried up two stories, the upper floor being fitted up for the accommodation of the railway employees. A contract has been let for the work to A. R. Clark.

Tenders are under consideration for the construction of a cribwork quay wall at Halifax, N.S., and for grading, etc. on the Sydney Mines branch. (Aug., pg. 351.)

James Bay Ry.—The Board of Railway Commissioners has approved of sites for stations at the following points: Duncan (York Mills), mileage 10 from Toronto; Richmond Hill, mileage 20; Gormley, mileage 25.75; Vandorf, mileage 30; Pine Orchard, mileage 35; Mount Albert, mileage 40; Zephyr, mileage 44; Pefferlaw, mileage 54.75.

A contract for the grading from Parry Sound to French River, Ont., about 70 miles, has been let to Angus Sinclair, and it is expected to do the work as far as the Magnetawan River this year. The Northern Construction Co. has the contract for the grading from the French River to Sudbury. The contract for the tracklaying from Parry Sound to Sudbury has been let to Angus Sinclair. (Aug., pg. 351.)

Klondike Mines Ry.—A mortgage deed to J. Carlisle and R. A. Lowther, securing an issue of bonds at the rate of \$30,000 a mile in respect of the first section of the K.M. Ry., from Dawson City to Grand Forks, Yukon Territory, has been filed with Secretary of State at Ottawa.

New Brunswick Coal and Ry. Co.—Two tenders were received by the Commissioners for the reconstruction of the bridges and trestles, and making improvements on the permanent way between Norton and Chipman, N.B., but neither fully complied with the terms. The Commissioners have entered into negotiations with the contractors tendering, and it is expected that some arrangement will be reached. Included in the work to be done is the provision and erection of 1,200 rods of Page woven wire fencing, 13,500 new ties, the construction of half a mile of spur track near Belle Isle,

the provision of 30 new cattle-guards, the remodelling and strengthening of trestles, the reconstruction of culverts, and the ballasting of the entire line. The principal bridge work includes the rebuilding of abutments of Kennebecasis bridge and the provision of two steel Howe truss spans; Washademoak bridge, 1,030 ft. in length, is to be reconstructed, 660 ft. of the trestle work is to be filled with earth, the remaining 150 ft. of trestle to be strengthened, and the two 74 and 146 ft. truss spans to be torn down and replaced; Cumberland Bay bridge, 340 ft. in length, is also to be reconstructed, 188 ft. of trestle work to be earth filled, two new trestles 52 and 54 ft. each to be constructed, and a new steel truss span of 50 ft. to be erected on new piers; Coal Creek bridge, 585 ft. in length, to be reconstructed with 518 ft. of trestle work and a new 67 ft. steel truss span; the Elliott trestle, 125 ft. in length, is to be reconstructed. We were advised Aug. 16, that the Commissioners had awarded the contract to Brown Bros. The work will be done under the charge of A. R. Wetmore, Provincial Engineer. The line, we are informed, has already branches to ten coal mines, and it is hoped within the next twelve months to have branches to other mines which are being opened up. The output of coal from the mines already opened up is considerable and, the Commissioners say, quite warrants the expenditure proposed by the Government. W. C. Hunter continues as Manager of the line. (Aug., pg. 351.)

Nova Scotia Eastern Ry.—A prospectus was recently issued in London, Eng., offering for public subscription £940,000 of 5% first mortgage gold bonds of £100 at £92.10s., redeemable in 1955, the company having the option of redemption at any time, on giving six months' notice at £105. The redemption of the whole of the bonds at maturity is provided for by a sinking fund policy with the Norwich Union Life Assurance Co., subject to an annual premium of 17s. 3d. %. The bonds are secured by a mortgage on the projected N.S.E. Ry. from Dartmouth to the Strait of Canso, with a branch to Country Harbor, N.S., about 236 miles. The Canadian promoters are to receive £50,000 in cash as consideration for their having obtained the charter, and the Government subsidies, and recoup them their expenditure on engineering surveys and other services, estimated to already exceed £40,000. In addition they are to receive an amount of fully paid stock, and upon completion of the line £50,000 by an allotment of bonds, calculated at the issue price of £92 10s. The officers and directors are: President, J. R. Stratton, Peterboro', Ont.; Vice-President, J. W. Grier, Montreal; other directors: J. White, Orillia, Ont.; W. C. Trotter, St. John's, Que.; C. Kloefer, Guelph, Ont.; H. K. Fitzpatrick, New Glasgow, N.S.; T. P. Coffee, Toronto; E. M. Macdonald, Picton, N.S. A London board of directors is to be organized on completion of the bond issue.

The N.S.E. Ry. was incorporated by the N.S. Legislature in 1901, and amending acts have been passed from time to time. The original proposition was to construct a line from Halifax to the Strait of Canso, and there was also power to construct a bridge or tunnel at the Straits. By one of the amending acts the Musquodoboit Valley Ry. project was amalgamated. Under these several acts the company surveyed a line of railway with branches aggregating 236 miles in length, and contracts for its construction have been made with the Provincial and the Dominion Governments. The Provincial subsidy is \$5,000 a mile, and the Dominion subsidy is at the rate of \$3,200 a mile, but may be increased to \$6,400 a mile if the cost of construction is over certain figures. A free right of way is provided for, power is also given to use materials from Government lands adjoining without charge,

and other rights, which may or may not be of value, are given by the act. The total cost of constructing the line, including \$1,500 a mile for rolling stock, is estimated at \$23,000 a mile, and J. W. Grier, Montreal, and T. P. Coffee, Toronto (now members of the Canadian Board of Directors), have stated that they are prepared to retire from the board and take a contract to complete the line at that figure. The prospectus stated that the plans had been revised by P. S. Archibald, C.E., Moncton, N.B., and H. Donkin, Sydney, N.S. The former estimated the earnings of the line at \$4,000 a mile, and another estimate placed the total earnings at £355,000. Deducting working expenses at 66½% of the gross earnings, the net earnings would be £64,746 on Mr. Archibald's estimate and £118,333 on the second estimate. (Aug., pg. 351.)

Orford Mountain Ry.—An extension from Eastman south to Potton Springs, Que., 12 miles, with stations at Bolton Centre, South Bolton and Potton Springs, was completed in 1905. A regular daily train service was put in operation over this piece of line June 5. Construction was started in Nov., 1904, on an extension from Kingsbury northward to Windsor Mills, about 10 miles, but work was closed down Jan. 15, when about eight miles had been graded and 3½ miles of track laid. Construction was resumed April 15, and it is expected that the work will be fully completed by Sept. 30. On the branch from a point between Lawrenceville and Eastman to Lake Bonella, four miles have been completed, and it is expected to complete the remaining mile this season. R. K. Harris is Chief Engineer, and the company is doing the work itself.

Prince Edward Island Ry.—The reconnaissance survey recently made for the proposed branch line between Kensington and Stanley Bridge, P.E.I., was made by W. B. MacKenzie, Chief Engineer of the Government railways.

The branch line between Montague and Cardigan, P.E.I., which is being constructed by W. Kitchen, is expected to be completed early in Oct. Four spans of the superstructure of the Hillsboro' River bridge have been erected from the north end and seven from the south end, and the swing span is in course of erection. It is hoped to have the bridge completed in Sept. Tenders are being asked for the construction of a telegraph line on the Murray Harbor branch.

The line in Charlottetown has been extended for about half a mile from the yards to the Marine Department's yard.

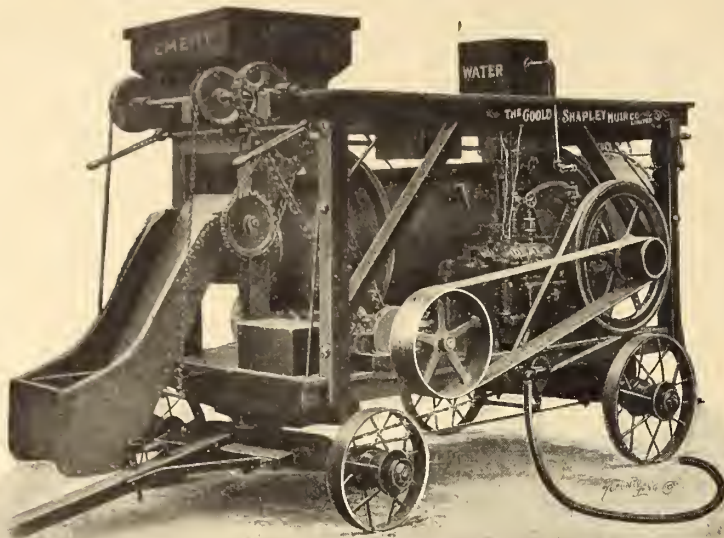
An elevated water tank service is to be installed at eight stations covering the main line. The tanks will have a capacity of 25,000 galls. each. An addition is being built to the wharf at Georgetown. (Aug., pg. 351.)

Quebec and Lake Huron Ry.—We are advised that the following are officers and directors for the current year:—President, Hon. A. Turgeon; Vice-President, Sir A. P. Pelletier; Secretary, J. C. Langelier; other directors: Hon. R. G. Carroll, Hon. C. A. P. Landry, Hon. C. Langelier, Hon. J. Tessier, R. Larue. The trustees for the company's bonds are F. Langelier and P. B. Dumolin. The financial affairs of the company, we are advised, are arranged, and R. J. Campbell, of New York, is the contractor for the line, which it is proposed to construct from Quebec to a point on Georgian Bay, near the mouth of French River. (Feb., pg. 51.)

Standard Coal and Ry. Co.—The survey referred to is being made by L. Lynn, and is expected to be completed by Sept. 20. (Aug., pg. 351.)

Temiskaming and Northern Ontario Ry.—The party which is to make an exploration survey from Lake Abitibi to James Bay, started from the first named point July 15.

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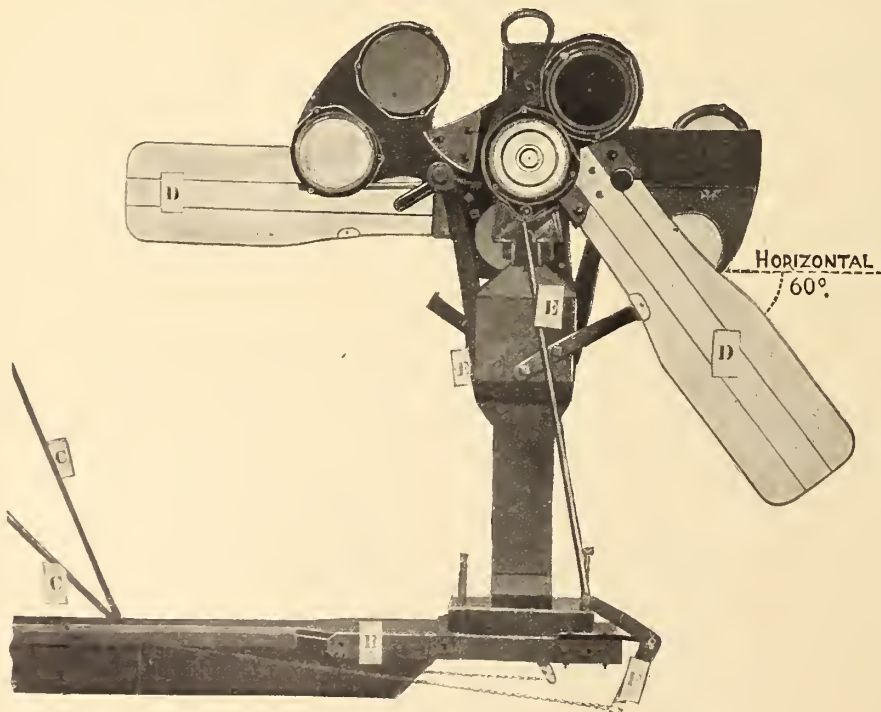
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E. A. Sullivan is engineer in charge, and A. G. W. Wilson, of Montreal, is geologist. It is expected that the exploration party will be absent about five months. A recent report states that the parties are experiencing considerable difficulty in their work on account of forest fires, and that one party had been burned out twice.

The proposition to electrify the section of the line from North Bay to New Liskeard, Ont., is under consideration by the Government. It is understood that the recommendation is that the single phase system be adopted. B. S. Arnold, of Chicago, is the consulting electrical engineer, and Chase and Richards, electrical engineers, Toronto, made the reports under his direction. (Aug., pg. 351.)

Tillsonburg, Lake Erie and Pacific Ry.—The Board of Railway Commissioners has approved of plans for the extension of this line from the present southerly terminus at Port Burwell, Ont., across Otter Creek to the southerly limits of the company's property at that point.

The negotiations in progress for the extension of the line from Ingersoll, through Embro and St. Mary's to Stratford, where it will join a projected branch of the Guelph and Goderich Ry., from Conestogo, are progressing satisfactorily. The St. Mary's town council has decided to submit a by-law for the provision of a \$35,000 bonus. The Stratford joint railway committee has completed an agreement with the C.P.R., which controls the T.L.E. and P. Ry., as well as the G. and G. Ry., respecting the line between Stratford and Conestogo. This provides for a \$30,000 bonus for the right-of-way in Stratford, the line to be completed by Dec., 1906, and that to Ingersoll by Dec., 1907. (Aug., pg. 353.)

Toronto, Hamilton and Buffalo Ry.—The Board of Railway Commissioners has approved of plans for the reconstruction of four bridges in Hamilton, Ont., subject to the Hamilton city council approving of the present width being reduced.

The Canadian Westinghouse Co., Hamilton, Ont., has recently issued the following booklets descriptive of its manufactures:—Type B Westinghouse integrating Wattmeters; Westinghouse multiple-alternating arc lamp system; Instructions for operating Westinghouse portable lamp testing Wattmeter; Instructions for the installation and operation of Westinghouse type I67a auto-starters for constant speed induction motors; Instructions for the installation and use of Westinghouse multiple alternating current arc lamps; Instructions for the installation and operation of type R motors; Direct current engine type generators, 125, 250 and 550 volts; Westinghouse regulating and reversing controllers.

The Delaware & Hudson Co. recently had as its guests a party of some 20 ticket agents and others principally from the Montreal district, to show them the picturesque scenery of Lakes Champlain and George. The party left Montreal on a Saturday evening for Plattsburg, N.Y., where they slept on the S.S. Vermont, on which they made the trip through Lake Champlain the following morning, reaching Fort Ticonderoga shortly after noon. They then went by train to Baldwin and took the S.S. Sagamore through Lake George, travelling by special car from Lake George station to Saratoga, thence by electric car to Lake Saratoga for dinner. They returned to Montreal by special compartment car tendered by the Pullman Co. General Passenger Agent Heard met the party at Plattsburg and accompanied them to Saratoga Lake. The company's Canadian Passenger Agent, W. H. Henry, went with them throughout the trip.

Railway Equipment Notes.

The Dominion Bridge Co. has placed an order for a locomotive in the U.S.

The Cumberland Ry. and Coal Co. is at present in the market for a consolidation locomotive.

The G.T.R. recently added to its equipment 28 cabooses, which were constructed at its Montreal shops.

The Canadian Northern Ry., we were advised Aug. 17, was not in the market for any additional rolling stock.

The Intercolonial Ry. has received two new dining cars from the United States. They are being used on the Ocean Limited.

The G.T.R. has completed at its London, Ont., shops, two mail cars for the Toronto-North Bay run. The cars are 50 ft. in length.

The Cape Breton Coal, Iron and Ry. Co., Broughton, N.S., will shortly be in the market for locomotives, coal cars and other equipment.

The Dominion Coal Co., Sydney, N.S., has received a number of steel coal cars of 100,000 lbs. capacity. The total number ordered is 150.

The Temiskaming and Northern Ontario Ry. Commission has placed an order for three workmen's cars with the Crossen Car Manufacturing Co., Cobourg, Ont.

F. H. Hopkins & Co., Montreal, are having built by Rhodes, Curry & Co., Amherst, N.S., five Rodger Ballast Hart convertible cars, for the Winnipeg City Council.

The Reid Newfoundland Co. is building at St. John's, Nfld., one first-class passenger coach which will be sheathed with copper; three second-class coaches and one rotary snow plow.

The New Brunswick Coal and Ry. Co. will shortly be in the market for additional rolling stock, locomotives, snow plows, etc. Hon. G. G. King and G. McAvity are Commissioners in charge for the New Brunswick Government.

Record of Recent Construction, no. 51, of the Baldwin Locomotive Works, Philadelphia, Pa., contains illustrations and descriptions of a number of locomotives recently completed by it; and no. 52 deals with forged and rolled steel wheels.

T. Drummond, Vice-President Lake Superior Corporation, recently stated that the Algoma Central Ry. car shops at Sault Ste. Marie, Ont., were ready for opening at any time sufficient business offered. The works have a capacity of eight completed freight cars a day.

The C.P.R. between July 17 and Aug. 16, placed orders for the following:—10 switching locomotives, five first-class cars, eight baggage and mail cars, and three flangers, at its Angus shops, Montreal; 36 vans at its shops, Farnham, Que.; and two pile drivers in the United States.

The investigation into the cause of the explosion of the boiler of the C.P.R. locomotive, 1143, at Kinross, Man., showed that the accident was caused by the crown sheet coming down, due to mud. This was caused by the very muddy condition of water in a water tank resulting from a cloud burst. The locomotive was built at Richmond, Va., June, 1900.

The Intercolonial Ry. received the following additional equipment between June 15 and Aug. 19:—Two dining and four sleeping cars from the United States; three first-class cars and 74 box cars from Rhodes, Curry & Co., Amherst, N.S.; four second class sleeping cars, four postal cars and four baggage cars from the Crossen Car Manufacturing Co., Cobourg, Ont. Six box cars have also been received to replace equipment.

The C.P.R. between July 17 and Aug. 16, received the following rolling stock:—Four freight locomotives, one first-class car, one mail and express car, and 525 box cars from its Angus shops, Montreal; four freight locomotives from the Canadian Locomotive Co., Kingston, Ont.; 14 freight locomotives from the Locomotive and Machine Co., of Montreal; five vans from its shops at Farnham, Que., and one pile driver from the U.S.

The general specifications for the 10 switching engines for which the C.P.R. has placed an order at its Angus shops, Montreal, are:—

TYPE.—0-6-0. Simple.
WEIGHT.—On drivers, 126,000 lbs.; total in working order, 126,000 lbs.
CYLINDERS.—18 ins. by 26 ins.
BOILER.—Type, radial stayed; material, steel. C.P.R. special; working pressure, 200 lbs.; diameter at smallest ring, 5 ft. 2½ ins.
FIREBOX.—Length, 8 ft. 0½ in.; width, 42½ ins.; depth, 65½ ins., front, 60½ ins.
TUBES.—No. 234; diameter, 2 in.; length, 11 ft. 5½ ins.
HEATING SURFACE.—Tubes, 1,406 sq. ft.; firebox, 138 sq. ft.; total, 1,544 sq. ft.
GRATE SURFACE.—26 sq. ft.
DRIVING WHEELS.—Diameter, 52 ins.; centres cast steel.
TENDER.—Style, slope back; water capacity, 3,500 gals.; coal 5 tons.
SPECIAL EQUIPMENT.—C. P. R. blow-off valves, brakeshoes, journal bearings and headlights; Simplex tender brake beams and Westinghouse air-brakes.

The Northern Construction Co. has been incorporated under the Dominion Companies' Act, with a capital of \$100,000 and offices at Montreal, for the purpose of carrying on a general contracting business. E. M. O'Brien, J. B. Ross, E. C. Perkins, G. A. Lafontaine, W. R. Staveley, of Montreal, are the provisional directors.

By an amendment to the Government Railways' Act passed last session of the Dominion Parliament, the Government has secured running rights over the G.T.R. between Montreal and Coteau Junction, and over the line of the Canada Atlantic Ry., to Depot harbor, as well as over any future extensions or branches of the C.A. Ry. The Government railway may transact a through freight and passenger business, and a local passenger business, and the terms upon which such business shall be done, as well as the tariffs, shall be decided upon by, and subject to the approval of the Railway Commissioners.

The N. J. Holden Co. has been incorporated under the Dominion Companies' Act, with a capital of \$200,000 and offices at Montreal, to manufacture and sell railway passenger, freight and street cars; car trucks, car wheels and any and all parts of cars, car trucks and all the accessories thereto, and all car and railway equipments, appliances and special ties; to contract for building railways and for other purposes; and in connection with the same to acquire the business now carried on by N. J. Holden & Co., Montreal. The formal incorporators are: L. Johnson, clerk; W. Palmer, clerk; P. A. Masse, engineer; C. Bethell, machinist; Miss A. L. DeGnir, stenographer, Montreal.

At the last session of the Dominion Parliament an act was passed amending the act respecting an arbitration between the Government as owning the Intercolonial Ry., and the G.T.R., providing that the arbitrators or the majority of them may make awards from time to time as may appear to be necessary, upon the various agreements referred to them, and that such awards may be made at any time within three months after the final hearing of evidence and arguments upon the point involved. It is also provided that the present, or any future arbitrators, shall not be incapacitated from acting in these matters in the event of their being appointed members of the Railway Commission.

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MAINLY ABOUT PEOPLE.

A. M. Bell, father of A. G. Bell, inventor of the telephone, died at Washington, D.C., Aug. 7, aged 86.

John, the seven-year-old son of T. F. Patterson, C.P.R. locomotive foreman at Kenora, Ont., was drowned there, Aug. 11.

The estate of the late John Bell, K.C., for many years Chief Solicitor to the G.T.R., has been valued for probate at \$123,000.

The private car of W. R. Tiffin, Superintendent Northern Division, G.T.R., was badly damaged by fire at Toronto recently.

A. U. Bain, chief clerk to General Superintendent Timmerman, Toronto, has resumed his duties after an absence caused by illness.

The marriage of A. G. Robb, of the Robb Engineering Co., Amherst, N.S., to Miss G. Steil, was celebrated recently at Sackville, N.S.

Capt. E. B. Anderson, of the C.P.R. Upper Lake str. Manitoba, and Mrs. Anderson, celebrated their golden wedding at Owen Sound, Aug. 4.

D. D. Mann, of Mackenzie, Mann & Co., has purchased the Falling Brook Park property at Scarboro' Bluffs, east of Toronto, for residential purposes.

J. D. Farrell, President of the Great Northern Steamship Co., has retired, and it is stated will retire from active work in the transportation field.

W. Gormally, Superintendent Toronto Union Station, has returned from a trip to Prince Edward Island, undertaken for the benefit of his health.

H. Tranche-Montague, an engineer on the Transcontinental Ry. Survey, was drowned in the headquarters of the Ottawa River, while canoeing, recently.

J. C. Darnborough, has been in railway service since 1871, and has put in 21 years at the Toronto Union Station, of which he is Depot Station Master.

W. J. Crossen, General Manager of the Crossen Car Manufacturing Co., Cobourg, Ont., who was operated upon for appendicitis in the last week of July is recovering.

J. Carbutt, who for some years was official photographer for the C.P.R., and who, in 1879, invented the "Carbutt dry plate," died at Philadelphia, Pa., July 28, aged 73.

Capt. Midford, who was one of the engineers engaged upon the construction of the South-western Traction Co.'s line between London and St. Thomas, Ont., has received an appointment in Japan.

Press reports state that F. Dillinger, formerly in the C.P.R. service at Ottawa and other points, but now in private business at Kitchener, B.C., will be appointed Inspector to the Board of Railway Commissioners.

Miss R. Bracken, who for 40 years was in the employ of the Michigan Central Rd. as operator and train dispatcher, and who retired from active work at the beginning of 1905, died at Niles, Mich., recently.

J. C. Sullivan was entertained at dinner by the C.P.R. engineering staff at Winnipeg, on leaving that company's service to take the position of Assistant Engineer on the staff for the construction of the Panama Canal.

C. A. Millener, Secretary-Treasurer Bay of Quinte Ry., and of the other Rathlun companies at Deseronto, Ont., was married at Trenton, Ont., Aug. 15, to Miss M. M. Evans, daughter of J. D. Evans, C.E., Trenton.

Mrs. Ham, wife of G. H. Ham, C.P.R. head office staff, died in Montreal, Aug. 12. Mr. Ham, who recently underwent an operation, had sufficiently recovered on that date to be removed from the hospital to his house.

C. A. Pipon, Passenger Agent for Ontario, International Mercantile Marine Co., returned to Toronto at the end of July, from Jersey, Channel Islands, where he went to see his father, General Pipon, who is seriously ill.

J. Gunn, Inspector General of Railways at Alexandria, Egypt, for the British Government, and Capt. Adams, General Manager of the Egyptian Delta Light Ry., have been spending some time with their friends at Kingston, Ont.

L. J. Ferritor, formerly Trainmaster G.T.R. at Stratford, Ont., and subsequently with the Wabash Rd., at St. Thomas, Ont., has been appointed Superintendent Central Division, Wabash Rd., at Decatur, Ind., succeeding S. E. Cotter.

C. E. Rolfe, G.F.A. Delaware & Hudson Co., and C. Wurtele, G.E.A. Great Northern Ry., U.S.A., have been elected active members of the Canadian Freight Association. A. H. Harris and G. Cantin have resigned from the Association.

H. Glendenning, of the I.C.R. Passenger Department, Moncton, N.B., was presented with a travelling bag by the officers of the department on leaving for Winnipeg, where he enters the service of the C.P.R., in the office of the General Passenger Agent, Western Lines.

R. H. Ingram, who was one of the U.S. officials appointed to the G.T.R. when C. M. Hays became General Manager, and was subsequently appointed Secretary Central Vermont Ry., has been appointed General Superintendent Southern Pacific Rd., at Los Angeles, Cal.

S. E. Cotter, who has been promoted to the position of General Superintendent of the Wabash Rd., at St. Louis, Mo., is a brother of G. F. Cotter, recently appointed General Superintendent, Fort Worth and Denver City Rd., and of W. D. Cotter, General Manager, Pere Marquette Rd.

Capt. A. Pollock, who died recently at Duluth, Minn., aged 85, was engaged in a seafaring life from 1832 to 1842, when he came to reside at Port Stanley, Ont. For over forty years he was engaged as a master mariner on the Great Lakes, and was one of the best known and daring of navigators there.

H. Moody, who has retired from the position of Deputy Secretary and Registrar in London, Eng., for the C.P.R., was presented with a silver finger bowl of Louis XIV design, bearing a suitable inscription, by the members of his staff. The presentation was made by T. Skinner, the London director of the C.P.R.

E. B. Jack, who has been appointed Professor of Civil Engineering at Dalhousie College, N.B., has been engaged on railway surveys and construction work, and bridge construction in Canada and the United States, and from 1901 until 1904 he was in charge of the engineering school of the University of New Brunswick.

Lord Strathcona; Sir C. Rivers Wilson, President G.T.R.; T. Skinner, director C.P.R.; and Archer Baker, European Manager C.P.R., have been appointed members of a committee formed in London, Eng., to collect funds from Canadians in England for the purpose of purchasing a piece of plate or other suitable article for the new battleship Dominion.

Hon. R. Prefontaine, Minister of Marine, left Montreal for Quebec, Aug. 23, from which place he will start on a tour of inspection to Anticosti, and the principal light and marine stations in the Gulf of St. Lawrence and Maritime Provinces. He has arranged to go to England in Oct. for a couple of months, on business with the Admiralty.

The Minister of Railways, accompanied by M. J. Butler, Deputy Minister; D. Pottinger, General Manager; E. Tiffin, General Traffic Manager; W. B. Mackenzie, Chief Engineer, and G. R. Joughins, Superintendent of Motive Power, Government Railways, recently spent some time looking over the Prince Edward Island Ry., and a portion of the I.C.R.

M. Adson, who has been appointed General Passenger Agent, Duluth, South Shore and Atlantic Ry., and the Mineral Range Ry., was born in 1872, and entered railway service Aug., 1893, since which his record has been: 1893 to 1894, stenographer; 1894 to 1898, ticket clerk and cashier, city office, first at Superior and then at Duluth, Minn.; 1898 to 1901, Travelling Passenger Agent; 1901 to July, 1905, General Agent, Duluth. Entire service with Duluth, South Shore and Atlantic Ry.

S. N. Parent, who has been appointed Chairman National Transcontinental Railway Commission, was born at Beauport, Que., Sept. 12, 1855, educated at Laval University, Montreal, graduating LL.L., and was called to the Quebec bar, 1881. He was elected a member of the city council in 1890, and in the same year a member of the Quebec Assembly. He was elected Mayor of Quebec, 1894, which he has retained to the present time. He was made Commissioner of Crown Lands in 1897, and became Premier in the following year, which office he has recently resigned. He was interested in transportation matters, and was President of the Quebec Bridge and Ry. Co.

T. Marshall, who has been appointed Secretary-Treasurer Canadian Freight Association, entered railway service 1882, his record being: Aug., 1882, to Mar., 1883, telegraph operator, Northern and Northwestern Ry., Elmdale, Ont.; April, 1883, to Dec., 1885, telegraph operator and ticket clerk same road, Allandale, Ont.; Jan., 1886, to Sept., 1887, relieving agent same road; Mar., 1887, to June, 1889, chief clerk to Traffic Manager, Lake Erie and Detroit River Ry., Walkerville, Ont.; July, 1889, to Nov., 1901, Assistant General Freight and Passenger Agent, same road; Dec., 1901, to Jan., 1904, General Freight Agent same road; Feb., 1904, to Jan., 1905, General Agent Pere Marquette Rd., London, Ont.; Jan., 1905, to July, 1905, Division Freight Agent, same road, London.

B. B. Kelliher, who was recently appointed Chief Engineer Grand Trunk Pacific Ry., was born in Ireland, Dec. 26, 1862, is the son of a civil engineer, and was educated at Trinity College, Dublin, and studied his profession under J. Dillon, of that city. He was engaged on survey work on two local railways, and on the Barrow River improvement works in Ireland before going to the United States in 1886. Since then his record has been: 1886 to 1890, successively, topographer, transitman and assistant engineer, Union Pacific Rd.; 1890 to 1896, assistant engineer Northern Pacific Rd., chiefly on the Cascade and Pacific Divisions; 1896 to 1897, mining engineer Anaconda Copper Co., Butte, Mont.; 1897 to 1903, Division Engineer, Oregon Short Line Rd.; 1903, Resident Engineer Denver, Northwestern and Pacific Rd.; 1904 to 1905, Division Engineer G.T. Pacific Ry., Winnipeg.

J. E. Price, General Superintendent Intercolonial Ry., died at Moncton, N.B., Aug. 2. He was born at Petitcodiac, N.B., Oct. 18, 1851, and entered railway service in 1867 as a telegraph operator on the I.C.R. In 1873 he became train dispatcher at Moncton, and three years later Assistant Superintendent of the Moncton and Campbellton division. In 1879 he went to Campbellton as train dispatcher, where he remained until 1881, when he was appointed District Superintendent of the Moncton and Ste. Flavie district. From 1892 to 1898 he held a similar position

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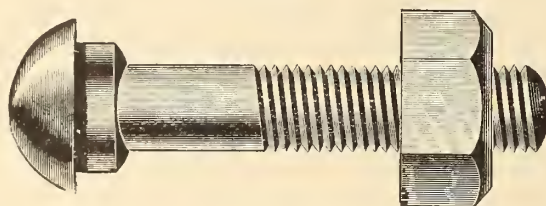
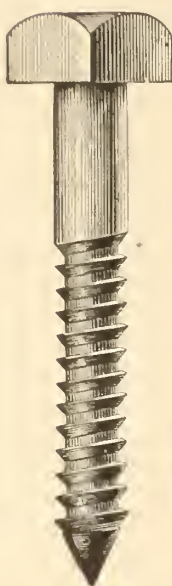
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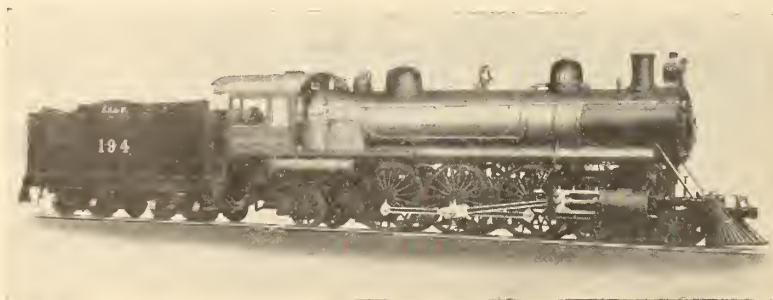
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" Niagara Falls *6.15 "
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Arr. North Adams *1.05 p.m., *5.08 a.m.
" Worcester *4.55 " *8.59 "
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on the Halifax and St. John district, and in 1898 became General Superintendent. In the fall of 1901 the position of General Superintendent was abolished, and he went to the Moncton and Ste. Flavie district as Superintendent, where he remained until reappointed General Superintendent Aug. 15, 1902. His entire railway service has been with the I.C.R.

Jno. Pullen, who has been appointed Assistant Freight Traffic Manager G.T.R., was born at Shepton Mallett, Somerset, England, Jan. 23, 1863. He entered railway service in 1877 as a boy in the office of Assistant General Freight Agent G.T.R., G. B. Reeve, at Sherbrooke, Que. In 1878 he was transferred to the general freight office, Montreal, and in 1880 went to Chicago as secretary to Traffic Manager Reeve, of the Chicago and G.T.R. In 1890 he was appointed agent of the West Shore Fast Freight Line, and subsequently agent of the Reading Despatch in Chicago. On the reorganization of the G.T.R., under the present management, in 1896, he was appointed Division Freight Agent at Stratford; in 1897 Division Freight Agent at Hamilton, Ont., and when the Central Vermont Ry. passed under the control of the G.T.R. on May 1, 1899, he was appointed General Freight Agent of that company at St. Albans, Vt., subsequently becoming General Freight Agent G.T.R., which position he held until his present appointment.

J. E. Dalrymple, who has been appointed General Freight Agent, G.T.R., was born in Montreal, Jan. 1, 1869. He entered railway service as apprentice in the Treasurer's office of the G.T.R., July 1, 1883, in which office he served until 1890 in various capacities, and finally as correspondence clerk. He left Montreal April 1, 1890, and entered the service of the Chicago and G.T.R. at Chicago, as Secretary to Traffic Manager Reeve. On Feb. 1, 1896, he was appointed Secretary to General Traffic Manager Reeve, of the G.T.R. System at Montreal. On May 1, 1899, he was appointed Division Freight Agent, G.T.R., at Hamilton, Ont. On Aug. 1, 1899, he was appointed Division Freight Agent G.T.R., at Detroit, also Manager of the G.T. Despatch, a fast freight line operating over the G.T. Ry., West Shore Rd. and Pitchburg Rd. On May 1, 1900, he was appointed General Freight Agent of the Central Vermont Ry., and was subsequently made assistant to the General Manager G.T.R., when G. B. Reeve was appointed to that office in 1902, returning to the Central Vermont Ry. as General Freight Agent on the return of C. M. Hays to the G.T.R. in 1903.

The professional career of John Earls, which terminates after 40 years of railway work, need not be allowed to entirely obscure the quite different service he has been able to render to the community through his public-spirited efforts to promote the culture of music. The pioneer choral organization of this city was the Philharmonic Society, and its successful record for many years was largely due, after the personal aptitude and professional skill of Dr. Torrington, to the financial support cheerfully given by a number of prominent citizens who were not known to have any connection with music other than their love of it. Of this group of public benefactors Mr. Earls was a steadfast member. How much of its prosperity and efficiency in its palmy days was due to his personal exertions only those intimately associated with him ever knew, for it was not his nature to do his work in the limelight. More recent achievements in choral performance were rendered possible by the pioneer work of the older societies, including the diffusion of musical skill by the discipline of preparation for the great annual concerts. So long as we have not

the State, either as Province or as municipality, directly promoting musical training, this city will be fortunate if it always finds such men as Mr. Earls and his lay fellow-workers ready to make sacrifices for the esthetic enjoyment of their fellow-citizens. —Toronto Globe.

Canadian Ticket Agents' Association.—Owing to the difficulty in obtaining hotel accommodation in Portland, Me., during the second week in Oct., when the Maine Musical Festival will be in progress, a change has been made in the date of the annual meeting, etc., of the C.T.A.A. The party will rendezvous in Montreal, leaving there by special G.T.R. train on Saturday, Oct. 14, at about 8 a.m. Luncheon will be taken at Gorham, N.H., and Portland will be reached about 6 p.m. The annual meeting and the dinner will be held on Monday, Oct. 16. Tuesday and Wednesday will be spent doing Portland harbor, Casco Bay and other features of the city and suburbs. Portland will be left on Thursday, Oct. 19, by special train via Maine Central, Boston and Maine and Canadian Pacific. A stop will be made at Fabyans for lunch and Montreal will be reached in time for dinner. The headquarters at Portland will be at the New Falmouth.

Lake Superior Traffic.—The Hon. Peter White, is the title of a book issued by the Marine Review Publishing Co., Cleveland, Ohio, in connection with the celebration of the 50th anniversary of the opening of the U.S. canal at Sault Ste. Marie, Mich., Aug. 2 and 3. The book is not so much the history of the man, as it is a history of the development of trade on Lake Superior. In the prologue the early trading expeditions on the lake are treated of, but the main chapters deal with the development since 1855. The great development of the trade of the lake began with the discovery of iron ore in the Marquette district, and the organization of the Marquette Iron Co. in 1849. Peter White went into the country as a young man in that year, has grown up with it, and was always the chief man in promoting its development. In 1855 the shipments of iron ore only reached a total of 1,449 tons, but with the opening of the canal in that year, there was an increase in 1856 to 36,343 tons. This traffic has grown until in 1904 it was 21,822,839 tons. The book is well illustrated and contains a large amount of interesting information—historical and statistical—about Lake Superior and the surrounding territories as well as of the development of its resources.

The Great Northern Ry. and the Northern Pacific Ry. have been notified by the U.S. authorities that their request to establish several sub-ports of entry on the International boundary between Manitoba and Montana, cannot be granted. The request was made in order to facilitate the importation of Canadian wheat into the U.S.

The rates for the conveyance of packing house products from Ontario points to the Atlantic seaboard for export, are, as a rule, based on the rate on similar commodities from Chicago to New York. This rate was reduced on May 3, from 30c. to 20c. per 100 lbs., and on Aug. 7, was restored to its original figure of 30c. As the rates from Ontario were reduced in May, so there has now been a corresponding increase. We are informed that this is only one of the ordinary fluctuations in rates on export traffic which is liable to occur at any time. We are also informed that the rates from the principal packing house points west and north of Toronto are lower, at present, than has prevailed under normal conditions for some considerable time. Outside of Toronto the principal packing house points in Ontario are: Brantford, Collingwood, Hamilton, Harriston, Ingersoll, London, Peterboro' and Stratford.

TRANSPORTATION APPOINTMENTS.

Canadian Pacific Ry.—W. R. Baker, heretofore assistant to the Vice-President, has been appointed assistant to the President.

C. W. Spencer, General Superintendent of Transportation, Eastern Lines, has resigned to enter Mackenzie, Mann & Co.'s service.

J. M. R. Fairbairn, heretofore Assistant Engineer, Maintenance of Way, has been appointed Acting Division Engineer, Eastern Division, taking over the duties of D. MacPherson, Division Engineer, resigned on his appointment as Assistant Chief Engineer, National Transcontinental Ry. Commission, Office, Montreal.

J. G. Sullivan, Engineer of Construction, Western Lines, Winnipeg, has resigned to become Assistant Chief Engineer of the Panama Canal.

J. E. Schwitzer, heretofore Division Engineer, Central Division, has been appointed Principal Assistant Engineer, Office, Winnipeg.

W. A. James, heretofore Assistant Engineer at Kenora, Ont., has been appointed Divisional Engineer in charge of grade revision and double track work on Western lines east of Winnipeg.

J. Callaghan has been appointed Division Engineer in charge of location and construction on Western Lines west of Winnipeg.

F. Lee, heretofore attached to the staff of the Assistant Chief Engineer, has been appointed Division Engineer, Central Division, vice J. E. Schwitzer, transferred. Office, Winnipeg.

H. P. Lake has been appointed Chemist for Western Lines, succeeding the late Professor E. B. Kenrick. Office, Winnipeg.

G. H. Eaton has been appointed Assistant Master Car Builder in charge of the car work upon Western Lines, with headquarters at Winnipeg. He will report to the Assistant to the Second Vice-President, and observe all standards established by the M.C.B. All correspondence will in future be sent direct to him and also the returns with copies to the Master Car Builder at Montreal. This class of work at Fort William, Winnipeg, and Vancouver, will in future class as car department work.

Hugh Craig has been appointed General Car Inspector of Western Lines with headquarters at Winnipeg.

Wm. Hodgson has been appointed General Car Foreman at Winnipeg.

C. W. Graves, heretofore District Freight and Passenger Agent Great Northern Ry., U.S.A., at Montreal, has been appointed Travelling Passenger Agent C.P.R. Headquarters, Winnipeg.

W. C. Toole, C.P.R. Land Agent at Calgary, Alta., is reported to have been appointed Commissioner of the reclaimed areas in the irrigated district of Alberta.

A. Anthony has been appointed locomotive foreman at Nakusp, B.C., succeeding H. Ingram, transferred.

H. Ingram, heretofore locomotive foreman at Nakusp, B.C., has been appointed locomotive foreman at Elholt, B.C., succeeding A. E. Bennetts, transferred.

A. E. Bennetts, heretofore locomotive foreman at Elholt, has been appointed locomotive foreman at Kamloops, B.C., succeeding F. E. Hobbs, resigned.

J. Anderson has been appointed Roadmaster at Field, B.C., succeeding V. Anderson, transferred.

V. Anderson, heretofore Roadmaster of the Beavermouth-Laggan section, Pacific Division, has been appointed Roadmaster at Revelstoke, B.C., succeeding W. Newman, transferred to the Esquimalt and Nanaimo Ry.

The C.P.R. has established an agency at Shanghai, and has appointed A. R. Owen,

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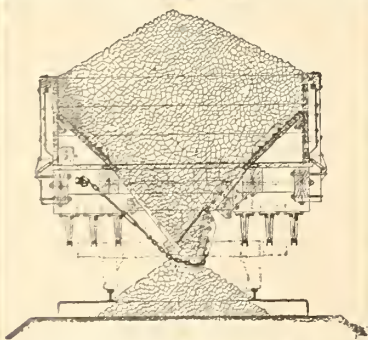
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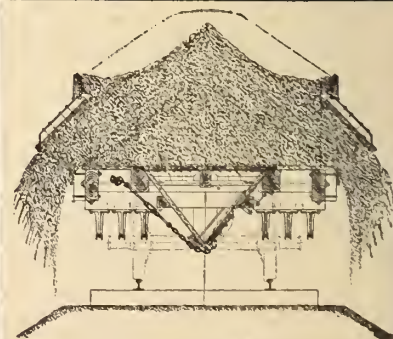
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heretofore successively in its Hong Kong and Yokohama offices, as Agent. The circular adds: "Jardine, Matheson & Co., who have so long and satisfactorily represented the company in north China, will continue as formerly, to act as agents at the other China coast and Yangtse ports."

Central Vermont Ry.—R. L. Burnap, heretofore Commercial Agent, C.V.R., and General Agent National Despatch Line, New York, has been appointed General Freight Agent, C.V.R., succeeding J. E. Dalrymple, appointed General Freight Agent, G.T.R. Office, St. Albans, Vt.

H. M. Baker, has been appointed Commercial Agent at New York, succeeding R. L. Burnap, promoted.

Commissioners of the Transcontinental Ry.—S. N. Parent, ex-Premier of Quebec, has been gazetted a member and Chairman of the Corporation of the Commissioners of the Transcontinental Ry., vice F. B. Wade, deceased.

C. F. McIsaac, ex-M.P. for Antigonish, N.S., has been gazetted a member of the Commission, succeeding A. Brunet, resigned.

Grand Trunk Ry.—J. Pullen, heretofore General Freight Agent, has been appointed Assistant Freight Traffic Manager. Office, Montreal.

J. E. Dalrymple, heretofore General Freight Agent Central Vermont Ry., has been appointed General Freight Agent, G.T.R., succeeding J. Pullen, promoted.

The jurisdiction of A. F. Read, Foreign Freight Agent, has been extended to include import freight traffic; correspondence relative thereto, which has heretofore been addressed to the General Freight Agent, will in future be addressed to the Foreign Freight Agent.

The following agents have been appointed—Aston, Que., J. O. Laroche; Howick, Que., F. E. Mahon; Beaconsfield, Que., H. Tanney; Newmarket, Ont., J. Willoughby; Oakville, Ont., H. D. Galbraith; Pinkerton, Ont., J. K. Sutherland; Ethel, Ont., J. Smith.

Great Northern Ry. (U.S.A.).—C. W. Graves, District Freight and Passenger Agent, Montreal, has resigned.

Mackenzie, Mann & Co.'s Lines.—It is semi-officially announced that C. W. Spencer, heretofore General Superintendent of Transportation C.P.R. Eastern Lines, is about to be appointed Manager of M. M. & Co.'s lines east of Port Arthur, in charge of operating the James Bay Ry., the Great Northern Ry. of Canada, the Halifax & Southwestern Ry. and Inverness Ry. & Coal Co.'s line, and that his office will be in Montreal.

Pere Marquette Rd.—R. W. Young, heretofore agent at Chatham, Ont., has been appointed Division Freight Agent at London, Ont., succeeding T. Marshall, resigned.

The Great Western Ry., of England, has issued a handsome book for American travelers in England, describing the historic sites and scenes of England reached by its line.

The business, plant, etc., of M. Beatty & Sons, Welland, Ont., has been taken over by M. Beatty & Sons, Ltd. The factory will be under the same management and control, and will continue to manufacture the same lines of machinery as heretofore.

The Toronto Transportation Club abandoned its proposed outing to Niagara Falls which it was proposed to hold on Aug. 11, as only about a dozen members signified their intention of attending, in response to the Secretary's circular.

It has been announced that the C.P.R. Atlantic liners, under construction in Scotland, will be named the Empress of Britain and the Empress of Ireland, respectively. One of these steamers was expected to be launched by the end of Aug., and the other early in Oct.

Canadian Car Service Bureau.

The Canadian Car Service Bureau has been organized with jurisdiction over all Canadian territory east of Port Arthur, Ont., and embracing all railways operating in that territory. Its object is to secure the prompt loading and unloading of cars and to that end enforce a reasonable and uniform charge for detention to cars and use of tracks. The members are railway companies, each member being entitled to one vote, but where the aggregate mileage of any member exceeds 1,000 miles, such member shall have one additional vote for each additional 1,000 miles or part thereof operated within the Bureau's territory. The annual meeting is to be held in Montreal on the second Thursday in July. An executive board of five shall be selected at the annual meeting, and the board shall elect one of its members as chairman. The board shall appoint a Manager, who shall be ex-officio Secretary of the Bureau and of the board. The board shall have power to make rules to carry out the purposes of the Bureau and decide all questions which may arise. The board shall meet on the second Thursday of each month. Each member shall have the privilege of sending a representative to meetings of the board, when claims in which it is interested are to be considered. The Manager shall construe all rules and regulations and his decisions shall be final unless changed by the board. The Manager shall obtain from the local agents of the respective railways daily reports of all cars subject to car service rules. The Manager shall make a monthly report to the members showing respectively by railways, the expenses of the Bureau, the number of cars handled and the average detention thereto, also the amount of car service charges collected, uncollected and refunded. The expenses of the Bureau shall be assessed monthly on the basis that the number of cars reported by each railway during the previous month bears to the total cars reported by all members and shall be paid to the Manager prior to the 15th of the month. Car service charges accruing under the rules shall be collected by and belong to the member on whose tracks the cars are detained.

At a meeting in Montreal July 27, at which the operating departments of various railways were represented, articles of organization were adopted, from which the above are extracts. The following were elected as the executive board:—M. C. Sturtevant, Car Service Agent, G.T.R.; G. S. Cantlie, Superintendent Car Service, C.P.R.; J. B. Morford, Assistant to the General Manager, Michigan Central Rd.; T. E. Henderson, Superintendent Car Service, Intercolonial Ry.; G. Collins, Receiver and Manager, Central Ontario Ry. J. B. Morford was elected chairman of the board. The board appointed as Manager, J. E. Duval, heretofore Chief Inspector of the Board of Railway Commissioners, who took charge on Aug. 1, and has opened offices at 121 Board of Trade, Montreal. The car service department of the Canadian Freight Association, which has heretofore dealt with car service matters, ceased to exist on that date. The Manager will probably divide the territory under the Bureau's jurisdiction into five or six districts, each in charge of an inspector, who will have authority to settle matters on the spot. P. K. Perry, who has been an inspector under the Canadian Freight Association, will be given the Toronto district. J. Wiley, heretofore a train dispatcher on the Canada Atlantic Ry., at Ottawa, has been appointed chief clerk at Montreal.

The board drafted car service rules which were considered at a conference between the board, the Manager, and J. R. Marlow, Manager of the Canadian Manufacturers' Association's Transportation Department, who also represented the Dominion Millers' Association

and the Lumbermen's Association of Ontario. J. Hardwell, Chief Traffic Officer, Board of Railway Commissioners, was also present at the conference. Certain changes were made at the conference and the proposed rules have since been submitted to the Railway Commissioners for approval. The Commissioners have given full publicity to the rules, so that other interested parties may be heard if they desire. In the meantime the old rules of the Canadian Freight Association are being used. The proposed rules are as follows:—

All freight in carloads, or less, handled by shippers or consignees, is subject to a service charge of \$1 a car, per day of 24 hours, or part thereof, if not loaded or unloaded within 48 hours. Exception—Twenty-four hours additional will be allowed on cars loaded with coal and coke in bulk, boards and deals.

Cars delayed under load beyond the free time, for any reason for which shippers or consignees are responsible, will be subject to the car service charge.

On cars placed before 12 noon, free time begins at noon; if placed after 12 noon, free time begins at 7 a.m. following. Cars to be accessible at all times during the period allowed for loading and unloading. Time lost through interruption, for which the railway is responsible, to be added to the free time allowance.

No charge will be made for Sundays or legal holidays.

When, owing to wet or stormy weather, loading or unloading is temporarily impracticable, agents will extend the free time allowance so as to give altogether the full free time period of suitable weather. Agents must immediately report particulars to the Manager, and note in their daily reports "Waived rule 5" opposite each car affected, giving dates on which the car service charge has not been assessed.

When, owing to irregularities in transportation, cars have been "bunched" and are tendered to the consignee in numbers beyond his ascertained reasonable ability to unload within the authorized free time, he shall be allowed such additional time as may be necessary to unload the cars so in excess, by the exercise of due and usual diligence. The agent must at once report the particulars to the Manager and obtain his ratification.

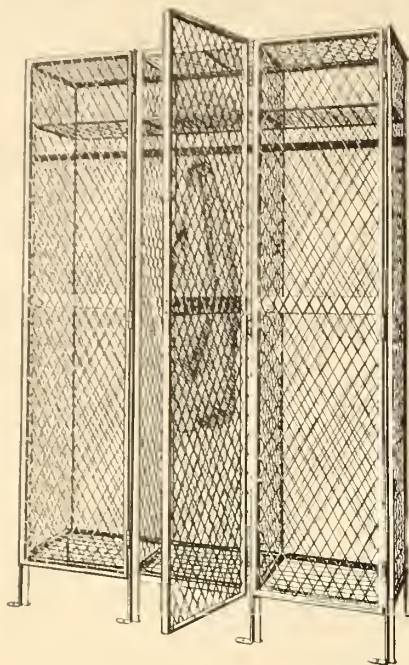
When both cars and tracks are owned by the same private party, no charge will be made.

Consignees must be promptly notified of the arrival of their freight, and will be held to have been notified when notice of arrival is given at their address or place of business, or if notice is mailed to the address given on the way-bill, consignee will be held to have been advised at 7 a.m. of the day following.

Twenty-four hours will be allowed to consignees, after notice of arrival, in which to pay charges, if any, and give orders for special placing or delivery. If not ordered within that time, car will be considered as for public team track delivery, and will be placed accordingly, and if not unloaded within the free time will be subject to the car service charge. Twenty-four hours additional will be allowed for clearance of customs, where the destination is a port of entry. Where the destination is not a port of entry, 48 hours will be allowed for clearance of customs at the outside port of entry.

The extra time after notice of arrival for paying charges and ordering, will not apply on cars for which agents have previous or standing orders or arrangements for placing for regular delivery on designated tracks or private sidings.

The delivery of cars to private tracks shall be considered to have been made either when such cars have been placed on the tracks designated, or when they would have been placed but for some condition for which shipper or consignee is responsible.



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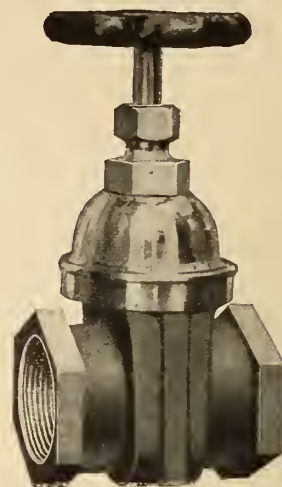
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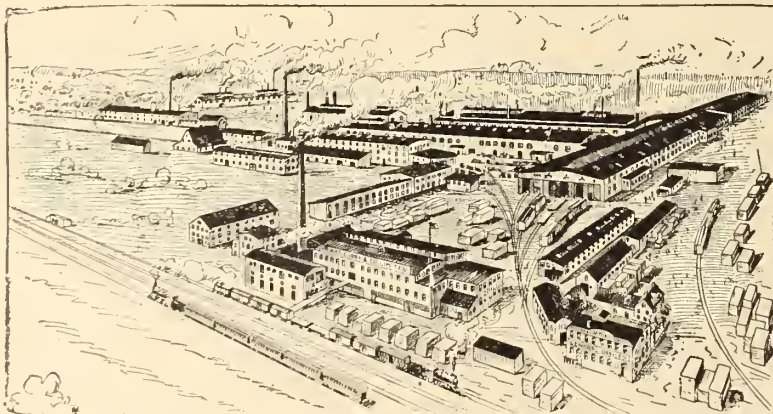
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2,500 Car Axles	500 tons Castings	1,000 tons Forgings	

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On arrival at Winnipeg the wisest policy for any new settler to adopt is to remain in Winnipeg for a few days and learn for himself all about the lands offered for sale and to homestead.

There are districts that have been settled for many years in which land can be purchased. Some of this may be unbroken prairie which still possesses all the richness and productive powers of our virgin prairies. Other lands, cultivated and having comfortable farm buildings, are ready for immediate possession.

There are Provincial Government lands, Dominion Government homesteads, and railway lands to be secured.

The price of land varies from \$3 to \$40 per acre. Location with respect to railways, towns, timber and water determines the price of land.

For information regarding homesteads, apply at the Dominion Land Office.

For purchase of Provincial lands apply at the Provincial Land Office in the Parliament Buildings.

For C.P.R. or C.N.R. lands apply at the land offices of said railway companies.

For lands owned by private individuals apply to the various real estate agents in the city.

For situations as farm laborers apply to :

J. J. GOLDEN,

PROVINCIAL INFORMATION BUREAU

617 MAIN ST., WINNIPEG

If, after placing, cars are ordered to another siding on the same road to complete loading or unloading by the same shipper, or the same consignee, and no switching or re-consigning charge is made, the free allowance will be computed from the original placing, less the time occupied in replacing the car.

If car is reshipped or reconsigned, the original consignee shall pay \$1 per car per day, or part thereof, for all time in excess of the period allowed by these rules, so that 48 hours' free time may remain to the party taking delivery.

Should a switching road give notice that it is unable to receive cars for private sidings, owing to conditions for which shippers or consignees are responsible, then any railway having cars for such consignees must so advise them. Car service will accrue until the cars are accepted by the switching road, and will be collected by the railway which is holding them.

Cars held in transit for inspection, cleaning, bagging, completion or change of load, change of destination, etc., and detained over the time allowed for such purpose, will be subject to car service charges, which must be billed forward as directed by the accounting department. If such shipments are transferred to other cars, the car service charges will follow on the cars to which transfer is made. The forwarding agent, or in the case of change of destination, the agent by whom arranged, must make the following notation on the bill of lading, "Subject to car service charges at....." The amount must also be inserted in the "back charges" column of the bill of lading, when practicable.

So-called industrial, logging or private roads handling cars for themselves or other parties, must be charged car service on all cars delivered to them from the time placed upon the interchange tracks until returned thereto, allowance being made for the time necessary to perform the switching service (not to exceed 24 hours), in addition to the free time herein authorized.

Cars must not be held short of the destination for the purpose of evading these rules. Loaded cars held back for cause must be reported to the Manager.

When cars are delayed or refused by consignees because of alleged incorrectness in the railway weights or charges, car service must be collected if charges or weights are found to be correct.

Agents must in all cases collect car service charges as soon as accrued. Should payment be refused, agents will withhold delivery, either by scaling or locking car, or placing it where it will not be accessible.

When the contents of a car are apparently not worth the combined freight and car service charges, and consignee fails to take delivery, the agent must wire the Manager for instructions.

All complaints, disputes and uncertainties which may arise under these rules must be referred at once to the Manager. The Manager may reduce or cancel the charges should he consider that the circumstances justify such action.

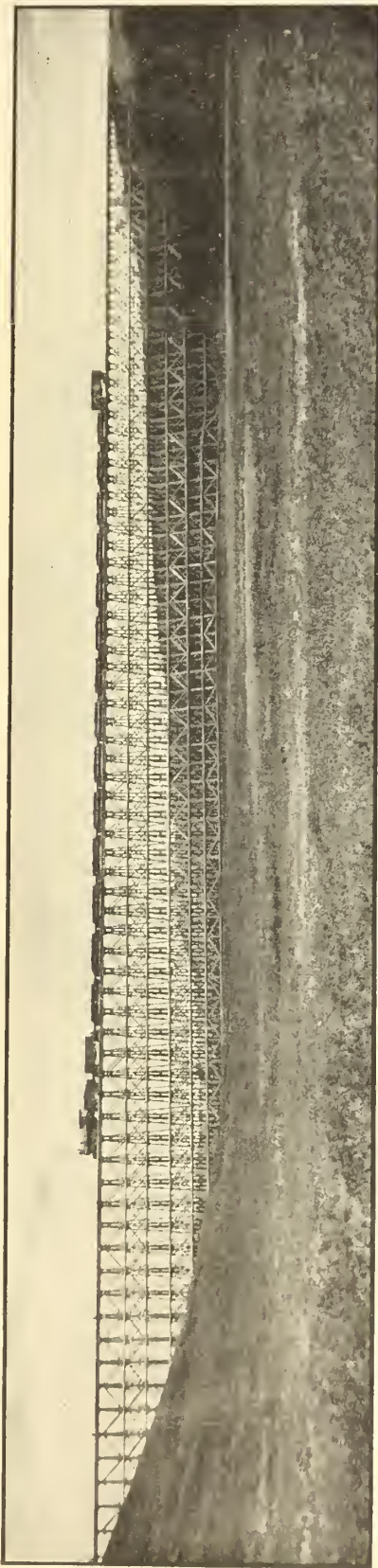
Claims should be filed with the Manager direct, and must be accompanied by the receipted bills for the amounts paid.

The Railway Commission has expressed an opinion that any rules which may be adopted should, as far as circumstances permit, be of uniform application throughout Canada. The Board has arranged to hold sittings at Fort William, Sept. 7; Winnipeg, Sept. 11, and New Westminster, Sept. 19, when representations will be heard with respect to the allowance of charges for car services and the rules governing them.

The address of the English office of the Atlantic, Quebec and Western Ry. has been changed to 87 Strand, London, W.C.

Canadian Northern Ry. Construction.

The Dominion Parliament at its recent session passed an Act granting an extension of time for the construction of this line, and



[From the Western Home Monthly, Winnipeg.]

CANADIAN NORTHERN RY.'S CROSSING OF THE SOUTH SASKATCHEWAN RIVER AT CLARK'S CROSSING, SASK.

from Regina to Humboldt, thence to Pas Misson, Sask.; from near Humboldt, Sask., to the Prince Albert branch at the crossing of the Saskatchewan River, and from west of Battleford into Battleford, Sask. During the discussion of the bill of the James Bay Ry. in the Senate Committee, W. H. Moore, Secretary C.N.R., said the James Bay Ry. would be a part of the C.N.R. The company had acquired the Great Northern Ry. of Canada, and the J.B.R. was a link which would connect the C.N.R. with the G.N.R.

The work of tracklaying on the main line is being pushed, and it is expected that the track will be laid into Edmonton, Alta., by the end of the season. The grading gangs expected to get into Fort Saskatchewan by Aug. 30, and hope to get into Edmonton by the middle of Sept. The steel was reported to be laid some miles west of Lloydminster, and trains had been run to that place. Tenders have been asked for the construction of a station and 16-stall round-house at Edmonton. The station building will be of brick and stone, two storeys in height, and 138 ft. by 33 ft.

On branch lines a considerable addition to the mileage will be put in operation this fall. This will include the Wakopa extension, the Rossburn extension, the Brandon short line, the Prince Albert line, and the extension from Hartney to Virden, providing the company receive permission to cross the Canadian Pacific at Hartney in time.

The company's main line crosses the South Saskatchewan River at Clark's Crossing, 485 miles west of Winnipeg, by a bridge with trestlework approaches, of which an illustration is given on this page. The superstructure consists of six 180 ft. pin-connected deck spans designed for a live load of two 306,000 lb. consolidation engines followed by a train load of 4,200 lbs. per lineal foot. The piers and abutments are built of concrete, the former being faced with heavy steel plate, and otherwise constructed to resist the heavy ice rush. The height from low water to top of pier is 50 ft. and to rail 87 ft. The east trestle approach is 415 ft. long and west approach 135, the total length of structure being 1,630 ft. A temporary bridge to carry trains, and steel superstructure was also constructed, the material for same being shipped to Saskatoon via the C.P.R. and floated down the river to the bridge site, so that tracklaying was not delayed on reaching the structure. All the steel work was handled by a derrick car, a traveller not being used. The total quantities of material used in work were as follows:—5,400 cu. yds. concrete; 995 tons steel; 40 tons iron; 925,000 B.M. timber; 76,000 lin. ft. piling. The piers, approaches, etc., were built by the company, and the superstructure by the Canadian Bridge Co., Walkerville, Ont. The steel work spans the river at high watermark.

An Order-in-Council has been passed by the Dominion Government making it clear that the bounty on steel manufactures does not apply to steel rails. The order was passed after the Algoma Steel Co. had successfully claimed the bounty on 60,000 tons of rails.

The Superintendent of Transportation, C.P.R. Western Lines, has issued the following notice to conductors, yardmasters and others concerned:—"When freight trains consist of dead freight and live stock, the cars containing the stock must be placed and hauled behind those containing dead freight, and when there are shipments of horses and cattle on a train, the cars containing the horses must be placed and hauled behind those containing the cattle. Of course, it is not intended that these instructions will interfere with those in effect about cars not equipped with air being placed immediately ahead of the van."

authorizing the laying out of the following additional lines:—from Regina to Red Deer River, Alta., with a branch west of the Saskatchewan River, northerly to near township 45, range 4, west of the third meridian—

MONTREAL STEEL WORKS

MANUFACTURERS OF **STEEL CASTINGS**

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SWITCHES AND TRACK WORK

FOR STEAM AND ELECTRIC ROADS

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INTERLOCKING PLANTS

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The Company has General Stores at Winnipeg, Vancouver, Calgary, Edmonton, and other places where purchasers will find the best of goods at moderate prices.

Transportation by the Company's Steamers, brigades of boats and canoes throughout the Territories not traversed by railways.

Full information at the Company's Offices, Winnipeg, or 1 Lime St., London, E.C.

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FOR STEAM AND
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Grand Trunk Pacific Railway.

The G. T. Pacific Ry. has let a contract to Macdonald, MacMillan & Co., Westbourne, Man., for the construction of a section of the main line from Portage la Prairie, Man., to the Touchwood Hills, 27½ miles. This section of the line will be light work, there being only about a total of 75 miles where the work will be at all heavy. The firm consists of D. Macdonald, A. M., and C. MacMillan, and has been engaged on the Canadian Northern Ry. construction. The contractors have a large outfit at Portage la Prairie, and work was started at once. The section of line to be built will almost parallel the C.P.R. from Portage la Prairie to a point a little west of McGregor, Man., and then proceed in a straight line west to the Assiniboine River, running about midway between the Manitoba and North-Western Ry. and the C.P.R. main line for some distance west of McGregor. Brandon is about 12 miles to the south of the located line, and will be reached by a spur; and Rapid City north of the line. The line will cross the Arrow River near Crandall and the Assiniboine River, near Crowe, and crosses the second meridian a little north of Sumners. The C.P.R. made an objection to the plans, on account of the located line paralleling their line for a considerable portion of the way, but the Government upheld the plans.

Plans and specifications for the Lake Superior branch from Fort William to the Transcontinental Ry. were completed early in Aug., and it is expected that tenders will be awarded for its construction early in Sept.

The following mortgages have been filed with the Secretary of State at Ottawa:—Dated Mar. 15, to the National Trust Co., securing an issue of 4% bonds to the extent of £4,150,000, guaranteed by the G.T.R.; redeemable 1955; dated Mar. 15, to the National Trust Co., securing an issue of £1,550,000 of 4% first mortgage bonds, guaranteed by the G.T.R., redeemable in 1955, for the construction of the Lake Superior branch; dated June 10, to the Royal Trust Co., securing an issue of £14,000,000 of 3% first mortgage bonds, guaranteed by the Dominion of Canada, redeemable in 1962.

So far as the Transcontinental Ry. is concerned, the new chairman of the Commission, S. N. Parent, has taken hold, and has been making himself familiar with what has already been done. The principal work that is before the Commission at present is the consideration of plans for the line from Grand Forks to Moncton, whether it will be by the St. John River route, or by the Central route. Another question is the final location of the line from Winnipeg easterly to the point of junction with the Lake Superior branch of the G.T. Pacific Ry. The Minister of Railways recently stated that it was expected that this work would be sufficiently forward to permit of tenders being let for its construction in Nov.

Grain rates from points in Ontario to New York, Philadelphia, Baltimore, Boston and Portland, heretofore 11½c. per cwt., will be increased to 13½c. per cwt., Sept. 1. This rate has nothing to do with rates for export, which were recently ordered to be reduced by the Railway Commissioners, and against which the railway companies are appealing.

The Randolph Macdonald Co. has been incorporated under the Dominion Companies' Act, with a capital of \$100,000 and offices at Three Rivers, Que., to acquire the business of Randolph Macdonald, Toronto, and to carry on and extend the same. The provisional directors are R. Macdonald, Toronto; W. R. Macdonald, Three Rivers, Que.; A. Stephen, Collingwood, Ont.; W. H. Morrow, Three Rivers, Que.; M. McAndrew, St. Catharines, Ont.

C.P.R. Betterments, Construction, Etc.

Fort William-Winnipeg Second Tracking.—The headquarters of Foley Bros. and Larson, contractors for the second track work between Fort William, Ont., and Winnipeg, are at Kenora, Ont., and J. W. Stewart, who is the managing partner for Canada, will have full charge of the work. (Aug., pg. 363.)

Molson-St. Boniface Line.—In connection with the double-tracking of the line from Fort William, Ont., to Winnipeg, Man., a cut-off will be constructed, which will obviate the necessity of running trains round by Selkirk, thereby making a saving of nine miles. The cut-off will leave the transcontinental line at Molson, and will run direct to the bridge crossing the Red River at St. Boniface. The cut-off will be 36 miles in length. Plans for this line have been approved of by the Board of Railway Commissioners. (Aug., pg. 363.)

Cut-off North of Winnipeg.—Consideration is being given to a proposal to construct a cut-off north of Winnipeg, from Selkirk to near Reaburn, Man., but nothing has been definitely decided. Should this cut-off be built it would save several miles of haul on traffic from west of Winnipeg to eastern points.

Moose Jaw Northerly.—A branch line, 12 miles in length, is under construction from Moose Jaw, Sask., northerly. The work is expected to be completed by Sept. 30. Jackson & McMenemy, Moose Jaw, Sask., are the contractors.

Branch from Yahk.—Construction is being gone on with on a branch line from Yahk, at mileage 40.8 west of Cranbrook, B.C., to the International boundary, 9.19 miles. The contractors are Breckenridge & Lund. At the International boundary the line will make connection with the Spokane International Rd., now under construction from Spokane, Wash., of which D. C. Corbin is the promoter. (June, pg. 255.)

G.T.R. Betterments, Construction, Etc.

In connection with the construction of the new Union Station at Toronto, representatives of the G.T.R. are engaged in negotiating with the lessees of the burned area expropriated as the site, for the surrender of their leases. The final legal complication in the case was removed when the Judicial Committee of the Privy Council, in London, refused one of the lessees leave to appeal against the expropriation order.

The double-track work on the line in Western Ontario was expected to be completed Aug. 30, the grading between Komaka and Kingscourt Jct. having been completed at the beginning of the month, and the grading being pushed between Kingscourt Jct. and Hyde Park.

The company is negotiating for the purchase of the fair grounds, Guelph, Ont., from the Militia Department, for use as a freight yard. The department is willing to sell, but the approval of the city has to be obtained. If the sale goes through the G.T.R. will provide a new site for the militia armouries, and will erect on the old fair grounds freight sheds and lay out large yards.

We are advised that there is no truth in the report that the G.T.R. contemplates constructing a line from St. John's, Mich., to either Perrington or Middleton, via Maple Rapids, Mich.

The Canadian General Electric Co., Toronto, has issued section 4 of its supply catalogue, illustrating snap, flush and knife switches.

The C.P.R., W. Whyte, Second Vice-President, states, will not at present make any change in its rates in Manitoba and the new provinces to the west, to meet the rate of the Great Northern Ry. and other lines on the U.S. side of the International boundary. There was a considerable margin in favor of Canada in the old rate, said Mr. Whyte, and the cut has not wiped it out.

Canadian Freight Classification.

Supplement No. 5 to Canadian Freight Classification No. 12, has been submitted for the approval of the Railway Commissioners. Following is the present classification, and the changes proposed to be made:—

PRESENT.		PROPOSED.	
	LCL. CL.		LCL. CL.
Page 43, Grain and Grain Products—		Page 21, Cattle Food	
Flour and Meal in barrels, cotton, jute or paper sacks or bags, estimated weight 200 lbs. per bbl.	5 8	Chopped Straw, Hay, Ensilage, Faramel, Meal, and other similar common cattle food.	4 8
Page 40, Furniture—		Mixed cars, Furniture, Wire Mattresses and Spring Beds O.R. released, min. 14,000 lbs. per car.	4
Mixed cars, Furniture, Wire Mattresses and Spring Beds, minimum 14,000 lbs.	4	Furniture and Chair Stock in white O.R. released.	3 6
Furniture and Chair Stock in white.	3 6	Antelope, Deer, Elk and Goat, in bales or cases.	1½ 3
Page 40, Furs, Robes and Skins—		Page 46, Groceries	
Antelope, Deer or Elk Skins, dry, in bales (C.L. minimum weight 16,000 lbs.) (Subject to rule 27).	1½ 3	Postum, cereal, same as Coffee.	
Page 42, Grain and Grain Products—			
Cereals, not otherwise specified, rolled, pressed, cracked, dried or dessicated, in boxes or paper sacks.	4 8	Forgings, heavy, same as Castings.	
Cereals, not otherwise specified, rolled, pressed, cracked, dried or dessicated, in barrels or cotton or jute bags.	5 8	Forgings, heavy, same as Castings.	
Page 56, Iron and Steel		Erase the words "C.L. minimum 20,000 lbs."	
Anchor, Anvils and Heavy Forgings.	3 5	Wood, or wood and iron combined, S.U. in crates or boxes.	4-1
Page 58, Iron and Steel		Same folded in crates or boxes.	1 5
Forgings, heavy, in the rough.	4 5	Same entirely taken apart K.D. flat in bundles, crates or boxes.	2 5
Page 75, Machinery		Automobile bodies in the white, crated or boxed.	D1
All kinds as per above C.L. minimum 20,000 lbs. N.O.S.).	6	Buggy seats, in white, nested, crated or boxed.	3
Page 91, Swings, Wooden, K.D. and tied in bundles.	3 5	Eliminated.	
Sup. 4, page 22, Vehicles			
Automobile bodies, in the white.	D1		
Page 98, Vehicle parts			
Buggy seats, in white, nested, crated or boxed.	1		
Buggy seats, in white, nested.	3		

The fifth annual issue of the Annual Financial Review for Canada, compiled by W. R. Houston, Toronto, has been published. The review gives the financial statements of the leading Canadian railways and electric railways, navigation companies, shipbuilding companies, telegraph and other companies, as well as a large number of financial and other corporations having their headquarters in Canada. The reports of a number of companies operating out of Canada, but in which Canadian investors are interested are also given. The statistical information as to movements of the stock on the exchanges, etc., are carefully compiled, and form with the other information, a valuable record for investors.



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NEW YORK CENTRAL
which is not only in the
GEOGRAPHICAL CENTER

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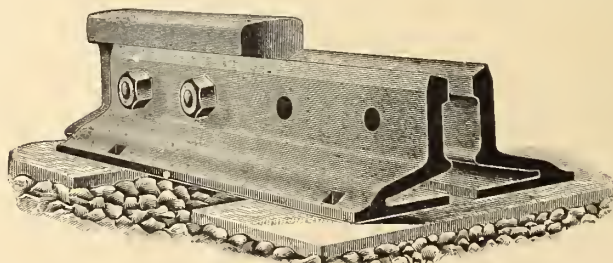
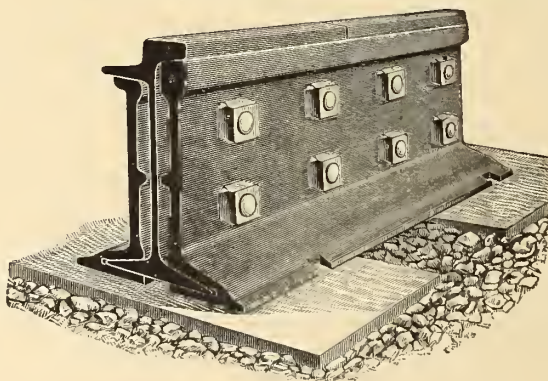
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EXCELLENT DINING CAR SERVICE**

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Through tickets, sleeper reservations, etc., obtainable from any Agent of the Grand Trunk or Canadian Pacific Railways and their connections.

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I.C.R. Staff Reorganization.

On his return from the Maritime Provinces to Ottawa, Aug. 21, after making an inspection of portions of the Intercolonial Ry., and the whole of the Prince Edward Island Ry., the Minister of Railways stated in an interview to the Ottawa correspondent of the *Globe*:—"So far as our recent trip went to show anything, it proved beyond question that the Intercolonial to-day, even though it has seemed to cost a very considerable sum, is in the best position it ever was as regards road-bed, rolling stock, station and terminal facilities, and traffic. The conditions which prevailed during the past year were exceptional, and they certainly wrought havoc with the financial results of operating the line. But the close inspection of the Deputy Minister, his clear analysis of the conditions presented, and his businesslike grasp of the whole situation, give promise of better results hereafter. I may say that as a result of our investigations up to the present a reorganization of the several branches or departments of the railway has been mapped out and will be immediately put into effect. The office of Chief Superintendent, held by the late J. E. Price, of Moncton, will be abolished, on the recommendation of the Deputy Minister and General Manager, who advise me that by this step about \$1,000 a month will be saved in salaries, without in any way impairing the efficiency of the operation of the line. This will be accomplished by adding further duties to those now discharged by the divisional superintendents, and holding them more strictly to account for results than heretofore. By the policy of decentralization we shall be able to relieve the central office of considerable routine business, and give the General Manager time to go out over the Intercolonial system and closely watch operations with a view to greater efficiency. It has been decided to place the track and maintenance of way departments under the charge of T. C. Burpee, C.E.; he and all the other leading officials whose responsibilities are increased will be held accountable for the results in their respective spheres of action, and if not satisfactory they will have to reckon with their superiors. . . . We have yet to inspect the Cape Breton section of the line and also the divisional points between Moncton and Montreal. The changes to which I have referred will take effect immediately, as they cannot be delayed. The remainder will be dealt with in a detailed and comprehensive report which Mr. Butler will prepare at the close of our tour."

Referring to press reports that offers had been made on behalf of certain interests to purchase the I.C.R., the Minister stated that he did not know of any such having been submitted to members of the government. Certainly none had ever been brought before the cabinet.

A Request to Subscribers.

The supply of copies of our July issue at our disposal has been completely exhausted and owing to an oversight in our office the usual number required for our files were not retained.

We are extremely anxious to obtain a few copies for July and shall be very much obliged to any subscribers who do not file their copies if they will mail us July numbers.

Eastern Canadian Passenger Association.

At a special meeting of the Eastern Canadian Passenger Association, held in Montreal, Aug. 15, T. Henry, Chairman, presided and the following lines were represented: C.P.R., G.T.R., Great Northern Ry. of Canada, New York Central and Hudson River Rd., North-

ern Navigation Co., Ottawa and New York Ry., Quebec Central Ry., Quebec Ry. Light and Power Co., Quebec Southern Ry., Richelieu and Ontario Navigation Co., Rutland Rd., Temiscouata Ry.; and G. H. Webster, Secretary. Notice of the granting of reduced fares was given by the several lines for Labor Day, Sept. 4th; National Encampment Grand Army of the Republic at Denver, Col., Sept. 4-7; excursions to Port Huron, Mich., Chicago, Ill., and as far west as St. Paul, Minn.; harvest excursions to Manitoba and the Canadian North-west; hunters' excursions; convention of Women's Christian Union at Los Angeles, Cal., Oct. 25-Nov. 2. A resolution was adopted that a letter be prepared and sent to the Dominion Government asking that Thanksgiving Day be celebrated on the Monday after the third Thursday in Oct.

The Great Northern Ry. of Canada is suing the G.N.W. Telegraph Co. for \$4,000 damages caused by the burning of the Hawkesbury, Ont., station.

The C.P.R. stations on the Lyleton branch have been changed as follows:—Corona to Dalny, at mileage 21.5 from Deloraine; and Eggo to Lydiatt, at mileage 28.6 from Deloraine, Man.

The Conservative Association of the newly founded Province of Alberta, has declared, among the resolutions passed at its initial convention, that the C.P.R. exemption from taxation was a consideration given by the Dominion as a whole, and should not be saddled on the western provinces alone; and that it is the duty of the Government "to so adjust this right with the company that such exemption may be removed and said lands become liable to taxation, and that this view should be constantly pressed upon the Dominion Government by the provincial authorities until this end is accomplished."

C. A. Matcham, Manager of the Lehigh Portland Cement Co., of Allentown, Penn., accompanied by A. W. Thorn, representative of the company for Canada, were in Belleville, Ont., recently and closed the purchase of about 1,000 acres of limestone and clay lands preparatory to the erection of what will be one of the largest single cement plants in the world; namely, to have a capacity of 4,000 barrels a day. The company hopes to be turning out cement at its Canadian plant some time next summer. The Thorn Cement Co., Buffalo, N.Y., will be the Canadian distributors. Until the completion of the Canadian plant the Lehigh cement will be supplied from the Lehigh Portland Cement Co.'s present mills at Allentown, Pa., where it manufactures some 9,000 barrels a day. This company also has a large mill at Mitchell, Ind., of 2,000 barrels a day, and is erecting another large mill at Mitchell of a capacity of 4,000 barrels a day.

C. W. Spencer, who has been appointed Manager of the Mackenzie, Mann & Co's lines east of Port Arthur, Ont., was born at Kemptville, Ont., Oct. 11, 1857, and entered railway service May 7, 1871, since which he has been consecutively to 1874 operator and clerk at Ottawa station; 1874 to May, 1880, assistant agent at Ottawa; May, 1880, to Jan., 1881, assistant train dispatcher; Jan. to May 11, 1881, Chief Train Dispatcher; May 11 to June 29, 1881, Traffic Superintendent; June 29, 1881, to Aug. 1, 1884, Assistant Superintendent; Aug. 1, 1884, to Sept. 30, 1887, Assistant General Superintendent; Oct., 1887, to June, 1903, General Superintendent, eastern division, at Montreal; June, 1903, to Aug., 1905, General Superintendent of Transportation lines east of Fort William, Ont.; entire service on C.P.R. He was also Vice-President and Managing Director of the Kingston and Pembroke, the Pontiac Pacific Jct., and the Ottawa, Northern & Western railways which had been acquired by the C.P.R.

Railway Finance, Meetings, etc.

The **Albert Southern Ry.** has not been operated for several years, and the shareholders have not been called to meet for some years. W. A. Trueman, Albert, N.B., is Secretary.

Atlantic and Lake Superior Ry.—The Court of Exchequer has given judgment in the application of this company for approval of a scheme of arrangement with its creditors. The court holds that the scheme cannot be confirmed, the line being in possession of the bondholders who are operating it. It was further declared that the court could not see its way to hand over the line and its appurtenances to the company in view of the manner in which it had administered its affairs heretofore.

An action has been entered by P. J. Galindez & Co., London, Eng., against the company to recover \$336,054, which they had invested in its bonds, etc. The plaintiffs state that they endeavored to make an arrangement with the company's creditors, but had failed; they now sought to recover the money they had invested.

Bay of Quinte Ry.—A recent press report stated that D. D. Mann had been inspecting this line with a view to purchasing it for the Canadian Northern Ry. Mr. Mann subsequently stated that the story was absolutely without foundation.

Canada Atlantic Ry.—It has been announced that the G.T.R. will take over the C.A.R. and the C.A. Transit Co. from the present owners, as soon as the new bonds are signed and delivered.

The Canadian Pacific Ry. Co. since 1901 has spent nearly \$40,000,000 on additions and improvements. In three years the company has spent about \$12,000,000 on equipment and \$4,000,000 on shops, \$5,000,000 on bridges and line improvement, \$2,000,000 on grade reduction, \$3,000,000 on yards, \$1,500,000 on terminals, \$850,000 for elevators. Of this expenditure in three years \$23,500,000 came from capital account and \$3,000,000 from surplus.—Wall St. Journal.

The accounts for the year ended June 30, show gross earnings of \$50,480,882; working expenses, \$35,006,794; net earnings, \$15,475,088; income from other sources, \$1,584,663; total net earnings, \$17,059,751. From this there has to be deducted fixed charges, \$7,951,066, and \$230,000 applied against ocean steamships and pension fund, leaving available for dividend \$8,875,685. The directors have declared a dividend of 2% on the preference stock, and of 3% on the common stock for the half year, which with the dividend paid for the previous half-year will absorb \$7,091,133, leaving a balance of \$1,784,553 to be carried forward.

Central Ontario Ry.—The Judicial Committee of the Privy Council in London has upheld the decision of the Canadian courts in the action in which the trustee for the bondholders asked for an order for the sale of the line. The company contended that a railway being a public utility, could not be sold. The Ontario courts decided against this contention and ordered the sale. The litigation has been going on for nearly three years.

Grand Trunk Ry.—A suit has been instituted by the Connecticut Valley Lumber Co., claiming \$300,000 damages by fire to 30,000 acres of timber lands alleged to have been caused by sparks from a G.T.R. locomotive. Other lumber firms have claims for damages amounting to \$200,000 arising out of the same fire.

Ironton, Bancroft and Ottawa Ry.—A report is current that an arrangement is being made for the amalgamation of the I.B. and O.R. with the Central Ontario Ry.

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The two lines have their terminal points near each other at Bancroft, Ont., and they both have power to construct extensions from that point. Neither line is financially strong, the C.O.R. particularly being the subject of continued law proceedings as to title and its bond issues. The I.B. and O.R. is one of the lines which the James Bay Ry. Co. has power to purchase as part of a connection with Ottawa and the Great Northern Ry. of Canada. We were recently advised that there is no truth whatever in this press report.

Midland Ry.—It is expected that the transfer of this line to the Dominion Atlantic Ry., the sale of which has been authorized by the shareholders, and approved by Parliament, will be made Oct. 1.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—Half-yearly dividends of 2% on the common stock and 3½% on the preferred stock for the half-year ended June 30, have been declared.

New Brunswick Ry.—The officers and directors for the current year are:—President, R. Meighen; Vice-President, H. H. McLean; other directors: Lord Strathcona and Mount Royal, J. Turnbull, J. Hardisty, J. S. Kennedy, S. Thorne, D. W. James, E. W. Burpee, F. S. Meighen.

Reid Newfoundland Co.—It has been officially stated that the Newfoundland Government has decided not to purchase the interests of the R.N. Co. in the railway and steamships. R. G. Reid, who was in St. John's, Nfld., during the negotiations, has gone to England, and is reported to have said before leaving that the Government would not have another chance of acquiring the property at the same price as it had recently been offered them. Negotiations are said to be in progress with private capitalists, for a sale of the property.

Temiscouata Ry.—Gross earnings for July \$13,897.33 against \$13,765.47 for July, 1904.

Temiskaming and Northern Ontario Ry.—The Provincial Treasurer of Ontario stated Aug. 15, that the net traffic receipts of the line for April, May, June and July averaged \$8,000 a month. The working expenses averaged, for the same period, 55% of the gross earnings.

Toronto, Hamilton and Buffalo Ry.—Estimated receipts for July, \$56,740.72, against \$56,760.12 for July, 1904.

The Algoma Steel Co., an officer recently stated, had orders in hand for 75,000 tons of steel rails. The mill is turning out 500 tons a day. The Intercolonial Ry. has placed an order for 25,000 tons of 80-lb. steel rails in Nova Scotia.

Residents of Windsor, Ont., are again complaining that the Pere Marquette Rd. is neglecting its local passenger traffic, and say that if an improvement is not made the matter will be brought to the attention of the Railway Commission.

The war on passenger differential rates from Chicago, Ill., which had been going on for some time between the Michigan Central Rd. on the one hand, and the C.P.R. and G.T.R. on the other, has been settled, and normal rates were restored Aug. 20.

P. S. Archibald, C.E., of Moncton, N.B., is acting as engineer for A. E. Trites of Bangor, Me., who has the contract for building the Northern Maine Seaport Ry., from La Grange to Stockton Harbor, Me. The line, which is an extension of the Bangor and Aroostook Ry., is about 60 miles in length, with 10 miles of branch lines. At the terminal at Stockton Harbor there are piers for passenger, freight and coal traffic. Work was started on April 1, and it is hoped to have the line completed early in Nov.

I.C.R. Relief and Insurance Association.

The 16th annual report for the year ended June 30, shows a net surplus of \$13,890.22. The total receipts for the year were \$78,661.27, and the credit balance from June 30, 1904, was \$13,329.56. The total expenditures were \$74,200.62, leaving a credit balance of \$17,790.92, which, less estimated outstanding liabilities, \$3,900, leaves a net surplus of \$13,890.22. The claims against the sick and accident fund for weekly indemnity, medical and surgical attendance and for special treatment and hospital charges during the year have been considerably in excess of its income. The deficit in this fund was found to be increasing so rapidly that the general executive committee found it necessary to order a special assessment of 25 cents per member, and this reduced the deficit very materially. It amounted to \$4,179.78. In view of the state of this fund the executive officers have under consideration the advisability of reducing the allowance made for special treatment and for hospital charges. Ten death claims were paid from the temporary employees' accident fund during the year; 53 death claims were assessed during the year; 45 were due to natural causes, and 12 were due to accidental injuries, and they totalled \$20,750. Fourteen claims for total disability allowance, aggregating \$6,250, were approved by the general executive committee—assessed and paid.

Suggestions for Steam Economy.

By W. McKay, of the Robb Engineering Co.

Almost every engineer and electrician is familiar with the fact that the majority of steam-power plants are not operating under the most economical conditions. In some cases this is due to the plant having been built up piecemeal as the requirements developed and in other cases it has been found difficult to determine the amount of power that would actually be required until after the plant was completed. If the consulting engineer could be informed, or could determine in advance the exact requirements for the present and future, it would be comparatively a simple matter to design the plant with fair accuracy as to the size and number of units, types of engines, boilers, and other details.

Although it is difficult to give any general information on this subject which will be of use or interest in the great variety of particular cases, it may be of some interest, and possibly of assistance to those who are managing or operating power plants, to discuss some of the principles upon which economy in the use of steam depends.

Beginning with the boiler, which is the first step in the production of power from fuel, it may be laid down as a good rule that it is more economical to use boilers of reasonably large size than to subdivide into a larger number of small units. The length and area of grate that can be conveniently fired or kept evenly covered with coal is, perhaps, the limiting feature, if hand firing is to be used. Working from this rule, a grate should not be over 7 ft. long or more than 5 ft. wide, which would give 35 sq. ft. of grate surface. The quantity of coal that may be burned on such a grate varies widely with the kind of fuel and strength of draft. Using bituminous slack coal of fair quality, with good natural draft or moderate-induced draft, it should be possible to burn 25 lbs. of coal per square foot of grate per hour, or 875 lbs. of coal per hour, and if this coal will evaporate say 8 lbs. of water per pound of coal, the boiler, if constructed with heating surface in proper proportion, would evaporate 7,000 lbs. of water per hour, which would be equal to a little over 200 standard boiler horse-power. In order to give good economy, the boiler should have from 2,000 to 2,400 sq. ft. of heating surface to evaporate

this quantity of steam economically. The return tubular boiler, on account of the amount of tube surface in proportion to the direct surface exposed to the fire, should have not less than 12 sq. ft. per horse-power; the water tube type from 10 to 11, and the internally fired type, which has a larger amount of direct heating surface in the furnace and tubes than either of the others, should have 9 to 10. If the grate surface is larger than that described, probably the grate will not be evenly covered with coal, or the fire will be dead in spots, so that too much cold air will pass through.

The economy in burning fuel is a matter requiring great skill and experience, and depends entirely upon the evenness, thickness and condition of the fire, which controls entirely the air supply and, therefore, the perfection or imperfection of the combustion, and I would say just here that there is very little use in splitting hairs over a quarter of a pound of steam consumption of the engine, while the fireman may be losing ten times this quantity of fuel from inefficient boilers or poor firing.

I fear it is too often the case that the demands for increased horse-power are met by grate surface too large in proportion to the heating surface of the boiler or forced draft, and too little attention is given to careful firing, with heating and grate surfaces in proper proportion to give best economy, and frequently a great deal of money is spent in obtaining high-class engines and condensers, whereas the principal loss is in the boiler and fire room.

The question is often asked whether in case of installing a certain horse-power of boilers, say 300 h.p., it would be more economical to have three boilers of 100 h.p. each or two boilers of 150 h.p. each. I would say by all means have the two larger units, as it will always be found that the larger boilers have less radiation, less air leakage and better combustion than a corresponding horse-power in small units. If it is necessary to have a spare unit for cleaning, let there be another one provided of the same size.

In regard to the pressure to be carried. It is well known that a high pressure gives a greater amount of expansion and better economy in proportion to the fuel burned. Even with simple engines in which it is not possible to obtain the full advantage of expansion, the high pressure of steam, which is drier and contains a larger number of heat units in proportion to the volume, gives the best results. I think every boiler should be designed for not less than 150 lbs. pressure per square inch. Even if it is not possible to utilize the full pressure, the boiler will be stronger, last longer and a better investment in the long run. In this respect, the water tube or some form of internally fired boiler in which the shell plates are not exposed to the high temperature of the furnace, are certainly safer than the horizontal return tubular boiler, because for large units intended to carry high pressure, the shell plates and seams must be of considerable thickness, and being directly exposed to the hottest part of the fire, are almost sure to give trouble, especially if there be any scale or sediment in the water which is liable to settle on the bottom directly over the fire.

As to the economy of various types of boilers, experience shows that any of the standard types, horizontal return tubular, water tube, or internally fired, if they are designed with proper proportions of heating and grate surface, give about the same evaporation per pound of coal, provided they are in good condition and clean both on the fire and water surfaces. While the externally fired boilers, either of the return tubular or water tube type, are said to have some advantage in combustion, on account of the heat of the brick furnace, they are subject to losses which are more serious, in the way of air leakage and radiation. Tests made at the Ohio

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State University, by Professor Hitchcock, show that the brick-setting of boilers continues to absorb heat up to 72 hours after being started, and that the average waste of heat in brick furnaces is about 8½%. The repairs and cost of keeping up brick furnaces are considerable, and as a result of deterioration there is more or less air leakage through the brickwork going on constantly. In this respect, the internally fired boiler has a great advantage over return tubular or water-tube boilers with brick furnaces, as it will be just as efficient after continued use as when first started.

In any type of boiler it is of great importance to keep the tubes and other surfaces free of soot and scale. Otherwise, a large loss may be sustained. I think it is a mistake to depend entirely on the steam blower or tube cleaner, which only removes the loose soot, a scraper being necessary for occasional use to free the hard scale, which will in time accumulate on the fire surfaces. It is necessary to point out that scale, or worse still, oil on the inside of a boiler may be a source of great loss, experience having proved that even a thin film of oil will so prevent the transfer of heat that the plates or tubes will be burned in a very short time. Nothing but pure water should be used for making steam, and the practice of making the boiler do duty as a water purifier as well as a steam generator cannot be too strongly condemned. If the owners of steam plants could be made to realize that a very small deposit of soot on the outside and scale on the inside means a loss of from 10 to 20% of the total fuel consumption, costing, perhaps, thousands of dollars a year, they would be convinced that it would be much cheaper to spend money in purifying apparatus, so that the scale or sediment will be removed before the water is fed to the boiler.

The next step to be considered is the heating of the feed water. This may be accomplished in two or three ways: First, by means of the exhaust steam, which, coming from a non-condensing engine, is capable of heating the feed water to 212° and of saving say 12 to 15% as compared with feeding cold water. For large plants where it would pay to use induced draft to make up for the loss in temperature of the chimney gases, which produce the draft, it will undoubtedly pay to use an economizer, but as this apparatus is expensive both in first cost and up-keep, the amount saved in utilizing the waste gases from a small plant would probably not offset the outlay. The closed type of feed-water heater is about as efficient as the open type, provided the water is pure and it avoids trouble from pumping hot water, but the open type is frequently made use of to assist in purifying the water and, if properly managed, may give good service in that respect. For condensing engines, a primary heater of the closed type may be installed between the engine and condenser, which will help to condense the steam and heat the feed water to a low temperature, say 130 to 140° Fahr. A secondary heater, either of the closed or open type, may be used to heat the feed water to a still higher temperature, say 212° by the use of the exhaust from the feed and air pumps, which cannot be used more profitably than in this way, as all the heat is returned to the boiler.

In regard to the type of engine used for the plant: If the size of plant is sufficient, and the work comparatively steady, the highest possible results may be obtained from compound condensing engines using the highest possible pressure of steam, but under other conditions, such as variable load, low pressure of steam, it may be quite possible that the simple engine will give better results and cost less for repairs. With low-steam pressure, non-condensing, there is certainly nothing better or more economical than a single cylinder Corliss engine where it can be

installed to advantage. In the case of direct-driven electric units of small size, it is necessary to use high or medium-speed engines, both on account of the loss in friction that would come in if countershaft and belting have to be used and because the higher speed machines will give the best regulation. For small units up to say 75 or even 100 h.p., there is nothing better than the modern high-speed automatic engine, provided it is of good design, not overloaded and not overspeeded. A well-designed engine with 12-in. cylinder and 12-in. stroke, which is usually run at 275 to 300 revolutions a minute, and made to develop from 75 to 80 horse-power, if arranged to run at say 225 to 250 revolutions a minute and to carry 50 or 60 h.p., will be as serviceable and give as good results as any type of engine of the same horse-power under ordinary conditions, non-condensing, and if the work is variable, requiring quick, close regulations, such as driving electric generators, where the load is irregular, say for supplying current to electric lights and electric elevators, the short-stroke, single-valve type of engine has great advantages.

As illustrating the small wear of high-speed engines under favorable conditions, a Robb-Armstrong engine of 12-in. stroke, which has been running at 275 revolutions a minute for electric lighting for 12 or 14 years, shows only about two-thousandths of an inch wear of the journals, and six-thousandths of an inch wear in the shaft bearings.

Unfortunately, this class of engine is so frequently overloaded and overspeeded that it gives poor results and gets a bad name, whereas the Corliss slow-speed type of engine is limited both in the matter of speed and horse-power, because the cut off of the single-eccentric type will not go much beyond half-stroke, and in that way the engine is saved from overloading and abuse, and this is, perhaps, one of its many advantages. A compound engine is not suited to low pressure or irregular loads and the extra cylinder and complication of parts is a great objection under such conditions. When a condenser is used, even with low pressure and somewhat irregular loads, it may be employed to advantage and with high pressure, say from 125 to 150 lbs. or over, the non-condensing compound will give the best results, unless the load is very irregular and running to light loads a large part of the time.

The question is sometimes asked whether it pays to reduce the pressure when the load is light. From my experience, I do not believe it pays to reduce the pressure on the boiler, excepting in very extreme cases, but if it can be done by throttling before the steam reached the cylinder of the engine, it would be an advantage, because this retains the heat units due to the higher pressure in the steam and the throttling has a slight super-heating effect. As a matter of fact, tests made by Willins & Robinson, of England, go to show that for light loads and high pressure, a throttling engine may do even better than automatic cut-off. The ideal arrangement is to throttle the steam for light loads up to say near quarter cut-off, and after that, for heavier loads, allow the variable cut-off to come into play. This practice has been carried into effect by the design of E. J. Armstrong, in which he arranges the shaft governor so that there is negative lead up to nearly one-quarter cut-off, after which the lead becomes positive, and this has the effect of throttling the steam for the earlier loads and undoubtedly gives better economy, in addition to making the engine run more quietly.

Another source of considerable loss in the operation of steam plants, particularly large ones, is the insufficient size of piping, causing the pressure to be reduced between the boiler and engine, and imperfect drainage, which is an enemy both to economy and the life of the engine. In many of the newer plants, it has

been found a great advantage to install large receivers to equalize the pressure and to collect the water before it reaches the engine.

In general, it may be said that the principal causes for loss in steam plants is the use of engines which are overloaded or unsuited to the conditions of work, undersized, or badly-arranged steam and exhaust pipes, and the imperfect condition and poor operation of the boilers. In many plants, exhaust steam, which might be utilized for heating, is wasted, and in others, where the exhaust steam is utilized for heating, power is wasted by excessive back pressure. The most economical use that exhaust steam can be put to is for heating, because all the heat units are made use of, but it should be done without back pressure on the engine, by means of a vacuum system to draw the steam and water through the heating pipes, otherwise there will be a loss both of fuel and power, due to the engine working under imperfect conditions.

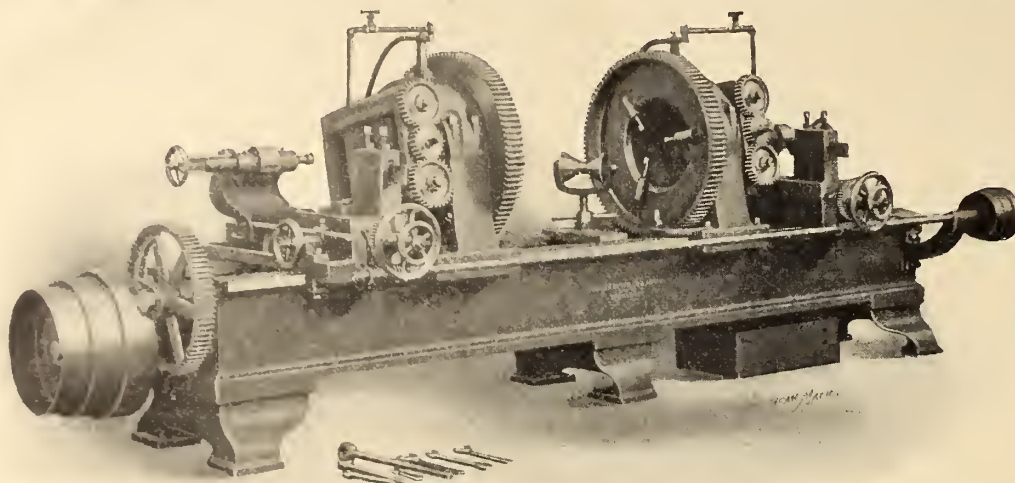
ELECTRIC RAILWAYS.

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Chatham, Wallaceburg and Lake Erie Electric Ry.—A difficulty arose at the end of July between the company and the Chatham, Ont., city council, with respect to the Aberdeen bridge, and after some negotiations an agreement was reached and construction work on the company's electric railway was resumed. (July, pg. 313.)

Chilliwack Power and Light Co.—At the annual meeting held at Chilliwack, B.C., recently, a report was presented by the General Manager showing what had been done by the company in connection with the establishment of an electric power plant and electric railway system in the Fraser Valley. By-laws had been passed by the municipalities of Chilliwack, Sumas, Matsqui and Langley, granting the free use of all public highways for pole lines and electric railway lines with exemption from taxation for 25 years, with an exclusive franchise for 20 years in all but Langley, where the franchise is an exclusive one for 15 years. A similar by-law had been given a second reading in Surrey township, and would doubtless be finally passed. An exclusive franchise for 10 years had been secured for telephone lines in the same townships, but no exclusive contract had been secured for telegraph lines. Application was made to the Provincial Government for a subsidy of \$3,000 a mile, but as the Government does not favor cash bonuses, an alternative proposal for the guarantee of a bond issue of \$750,000 at not exceeding 5%, the company to place 40% of its gross earnings at the disposal of the Government to cover the guarantee. The Government did not do anything in the way of aiding railways last session, but it was confidently expected that the company would receive substantial recognition another year. In regard to stock subscriptions only one-half of the district had been covered, and \$25,580 had been subscribed. It was expected to have \$50,000 subscribed before the cities were reached, and it was hoped to obtain \$100,000 of stock subscribed for in New Westminster and Vancouver, \$50,000 in each. The report of the General Manager was adopted, and the name of the company was changed to the Fraser Valley Electric Ry. and Power Co. Following are the officers for the current year: President, G. R. Ashwell, Chilliwack; First Vice-President, H. W. Vanderhoof, Sumas, B.C.; Second Vice-President, E. C. Ross, Rossland, B.C.; Treasurer, W. L. Macken, Chilliwack; Secretary and General Manager, J. B. Morgan, Chilliwack; Auditor, J. H. Suart, Chilliwack.

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The electric railway which it is proposed to construct will run from Chilliwack through the delta of the Fraser River, to New Westminster, a distance of about 50 miles. The company has secured a water power on the Veda River, about six miles from Chilliwack. J. B. Morgan is the principal promoter of the company.

Fort William Ontario Incline Ry. and Mount McKay Resort Co.—Application will be made next session of the Ontario Legislature for an act incorporating a company with this title to construct an incline railway from Fort William across the Kaministiquia River to Loch Lomond; to generate electrical power for the purpose of operating the line, and for sale; and to establish summer resorts. Watson, Smoke and Smith, Toronto, are solicitors for the promoters.

Glenora Water Power Co.—A company is being formed in Prince Edward County, Ont., to develop a water power and to construct a system of electric railways in the county.

Longueuil Street Ry.—The Longueuil, Que., town council is discussing the application of this company for a 20-year exclusive franchise in the town. In connection with the application it was stated that letters had been received from the Minister of Railways and C. M. Hays, Second Vice-President and General Manager, G.T.R., to the effect that the Montreal and Southern Counties Ry. had practically secured permission to run its projected electric line across the Victoria bridge.

Montreal Street Ry.—A second track has been laid on St. Lawrence St., between Sherbrooke St. and Mount Royal Ave., and a second track is being laid on Notre Dame St. west, Montreal. (July, pg. 315.)

Niagara, St. Catharines and Toronto Ry.—A proposition has been submitted to the St. Catharines, Ont., City Council by F. Nicholls, President, in connection with the electric railway development of the district. The plans provide for the construction of a spur line from the N., St. C. and T. Ry. at Thorold, to connect with the projected Toronto and Hamilton Ry. at Allanburg; and lines from St. Catharines to Welland via Fonthill; and an extension westerly to Stoney Creek to connect with the Toronto and Hamilton Ry. there. The latter extension includes the construction of a high level bridge at St. Catharines, for which the city council is asked to guarantee the interest on \$100,000 of bonds at 4½%. (Aug., pg. 371.)

Peterborough Radial Ry.—We are advised that it had not been decided when construction operations would be started on the proposed extension from Peterboro' to Young's Point, Ont. The survey for the extension is being made by —. Heathcoate. (July, pg. 315.)

Southern Light and Power Co.—We are advised that until the company's power plant has been completed it will not be in a position to say anything definite regarding the construction of an electric railway. Press reports recently stated that the company proposed to construct an electric railway from Port Credit to Collingwood, Ont., and had already secured some franchises. (Aug., pg. 371.)

Toronto and York Radial Ry.—Work has been started on the extension of the Mimico Division from the present terminal at Long Branch, to Oakville, Ont., where a junction will be effected with the Hamilton Radial Ry., now nearly completed from Burlington to Oakville. (Aug., pg. 373.)

Vernon to Lumby.—The Vernon-Okanagan Land Co. is developing a water power at Shuswap Falls, B.C., and proposes to construct an electric railway from Vernon to Lumby. D. R. Young is the Manager.

Electric Ry. Finance, Meetings, Etc.

British Columbia Electric Ry.—Railway earnings for June—Vancouver, \$24,076; Victoria, \$10,795; Westminster, \$11,902; total, \$46,773, against \$40,896 for June, 1904. Gross earnings, railway and lighting, \$71,592, against \$65,932 for June, 1904. Working expenses, \$39,059; renewal funds, \$6,695; net income, \$25,838, against \$39,455 working expenses; renewal fund, \$4,988; net income, \$21,489 for June, 1904. Net earnings for twelve months ended June 30, \$328,680, against \$285,042 for same period, 1903-04.

Guelph Radial Ry.—The Guelph, Ont., city council has passed a by-law subscribing \$48,000 of the capital stock of the G.R. Ry.

The \$48,000 of bonds issued in connection with the street railway ten years ago, have been retired.

Some time ago the City Council sold \$30,000 of street railway debentures, receiving therefor a bonus of \$2,000. The council paid the \$30,000 to the Street Railway Commissioners, and the latter's treasurer is seeking to secure the bonus also.

Halifax Electric Tramway.—Railway receipts for July, \$17,284.44, against \$17,528.42 for July, 1904.

Hamilton Street Ry.—The City Treasurer has received cheque for \$5,790 mileage and percentage on receipts for the quarter ending June 30. For the half year ended June 30 the city's receipts on per centage, etc., were \$10,688 against \$10,707 for same period, 1904.

Kingston, Portsmouth and Cataraqui Ry.—Following are the officers and directors of the re-organized company:—President, H. W. Richardson; Vice-President, R. V. Rogers; Secretary-Treasurer, W. F. Nickle; other directors: G. Richardson, H. C. Nickle and G. A. McDonald, of Kingston, Ont.; W. D. Ross, Toronto.

Montreal Street Ry.—Passenger earnings for July, \$234,097.34; total earnings, \$257,827.99, against \$223,137.17 and \$226,695.18 for July, 1904. Working expenses, \$136,319.14; fixed charges, \$32,751.80; surplus, \$88,757.05, against \$131,276.13 working expenses, \$25,636.78 fixed charges, and \$69,782.27 surplus for July, 1904. Net earnings for ten months ended July 31, \$786,980.03; fixed charges, \$231,919.73; surplus, \$555,060.30, against \$707,399.64 net earnings, \$201,007.79 fixed charges and \$506,391.85 surplus, for same period 1903-04. Interest on Montreal Park and Island Ry. Co.'s bonds held, not included.

Niagara, St. Catharines and Toronto Ry.—Gross earnings, Jan. 1 to July 31, \$123,875.97; net earnings \$38,329.93, against \$113,778.96 gross and \$35,347.51 net for same period, 1904.

Toronto Ry.—Car receipts for July, \$242,698.60, against \$213,854.20 for July, 1904.

Electric Railway Notes.

H. C. Nickle has been appointed Superintendent of the Kingston, Portsmouth and Cataraqui Electric Ry.

The second annual picnic of the Montreal Street Ry. Benefit Association was held at Riverside Park, Montreal, Aug. 14 to 20.

Record of Recent Construction, no. 50, of the Baldwin Locomotive Works, Philadelphia, Pa., describes the electric motor and trailer trucks manufactured by it.

The Mayor of Toronto has prepared another plan for the entrance of the radial electric railways into the city, and will submit the same to the Board of Control early in Sept.

The Ottawa Electric Ry. has issued orders to its conductors not to wet their fingers in their mouths before separating strips of tickets for passengers, on the ground that it is

unsanitary. Some of the conductors, on their part, have talked of refusing to take money from passengers who hold it in their mouths.

The question of whether the Metropolitan Ry. has exclusive rights on Yonge St., Toronto, north of the C.P.R. tracks, is likely to be finally settled by the courts. The city solicitor is preparing a case which will be submitted to the courts unless the Metropolitan Ry. and the Toronto Ry. agree as to their respective rights.

The Judicial Committee of the Privy Council, London, Eng., has reserved judgment in the appeal of the Toronto Ry. against the decision of the Court of Appeal in the mileage suit cases. The original action was to recover mileage on the tracks on Queen St., west of Roncesvalles Ave., and the amount which would now be due, should the Privy Council conform the judgment, is \$8,000.

The general dimensions of the Montreal Street Ry.'s new observation car, of which an illustration was given on pg. 371 of our Aug. issue, are: length, over all, 46 ft. 5½ in.; length of car body, 34 ft. 2½ in.; width 8 ft., 4¾ ins.; front platform, for motorman and entrance to car, and rear platform, for conductor and entrance to car, each 5 ft. 3½ ins. by 6 ft., 10 ins.; height of car from rail to top of grille, front 5 ft. 11 ins.; at rear, 8 ft. 7½ ins. The seats, of which there are four on each level, are each 3 ft. by 15 ins.

The Toronto branch of the International Street Railway Men's Union has endorsed a recommendation of its business manager to form a voluntary death benefit fund. The proposal is to assess each member \$1 on the death of a member and to turn over the amount to the widow or family. Failure to pay the assessment will not affect the member's standing in the union. The proposal to make an assessment of 50c. a member on the death of a member's wife was laid over for future consideration. The local branch has 1,168 members.

The report of Judge Snider, the referee appointed to take evidence in the penalty suits brought against the Toronto Ry. by the City Council has been filed. The Judge found that under the street railway agreement the City Engineer has power to order a time-table determining the speed and service of cars; that the schedule prepared by him was workable and reasonable; that the company did not attempt to comply with its requirements for the busy hours, for a night car service and for the routes to be taken by certain cars, and that, therefore, the company is liable to a fine of \$100 per day for each of the 181 days mentioned in the statement of claim, as provided by the legislation passed at the last session of the Provincial Parliament. The city solicitor will move for judgment, but it is understood that the company will appeal.

Parks and Park Amusements.

By J. McArthur, Superintendent Toronto and York Radial Railway.

In order to make a park a success financially it is essential that the population of a place be large enough to guarantee a sufficient attendance. From a street railway manager's point of view the primary object of a company in obtaining and controlling park property is to make it a source of revenue. The ordinary traffic of a street car is composed largely of working people going to and from their work; of business and professional men going to and from their offices; of people of all classes out to do some shopping, and of people going to visit friends. If in addition to the above mentioned traffic, the company can by offering sufficient attractions, induce the public to patronize its cars, it means that the revenue of the company is increased by just the amount of the extra patronage secured,

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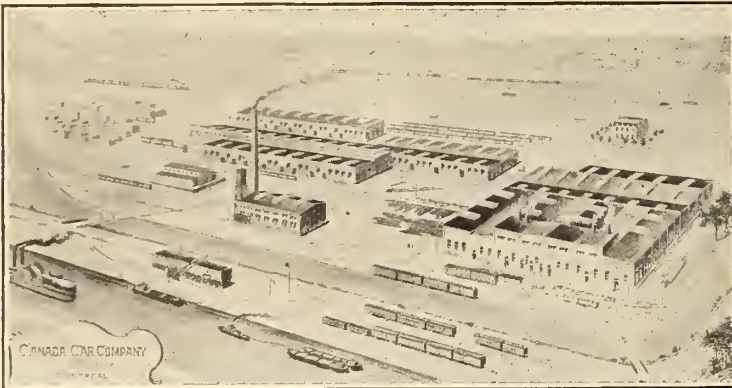
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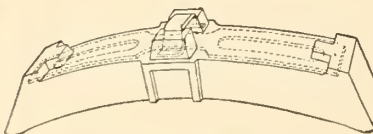
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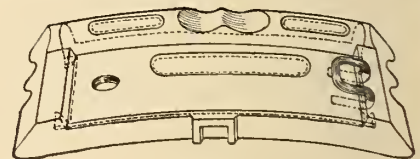
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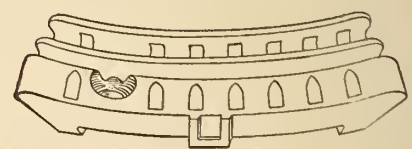
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The object of a company in offering parks and park amusements as an inducement to the public to patronise its lines is, or should be, to induce people to use the cars during the parts of the day and evening when they would otherwise be running nearly empty, or at least with very light loads. And the question naturally arises, does it pay a company to invest money in park property? Are the returns sufficient to justify the expenditure? This question can best be answered by stating the fact that only a very few years ago it was a rare thing to find a street railway company owning and operating a park of its own. Now it is a rare thing to find a company operating street cars, which has not some attractions in the way of parks and park amusements to offer the public.

Should a company own and control its own parks, or should it depend on the attractions offered in public parks to secure a sufficient patronage for its line? These are questions on which there is liable to be a great variety of opinion. But so much depends on the local conditions that it would be a difficult matter to lay down a rule that would fit all cases. In some of the large United States cities such as New York, Chicago and Boston, the public parks are sufficiently attractive to induce people to patronize them, not only by thousands, but by tens of thousands. In cases of this kind the railway companies have all they can do to attend to the ordinary traffic, without making any special effort to attract extra patronage to their lines. The conditions on this side of the line are entirely different, there being few, if any railway companies, which are not in a position to do a largely increased business during certain hours of the day when the ordinary traffic is light.

In the selection of land to be used as a pleasure resort, it is desirable that a location be secured having as many natural attractions as possible, as a landscape view in its natural state is more admired and more generally appreciated than when artificial means are used to make it attractive. Although not indispensable, it is very desirable that lands to be used as a pleasure resort and place of amusement should be situated on the edge of a lake or stream, as it adds greatly to the natural attractiveness of the place, besides permitting park frequenters to indulge in the pleasure of boating. A park without water loses one of its best drawing cards as a place of amusement, as invariably one of the first questions asked by parties arranging for picnic excursions is, "What about boats; how many boats have you?" This question has been considered of such importance in Chicago, that in some of the parks away from the lake lagoons have been constructed at great expense to enable the people to enjoy the pleasures of boating.

In selecting land for park purposes, great care should be taken as to the location, as on the distance of the haul depends largely whether the park can be operated at a profit or at a loss. A distinction must be made too between parks on city lines and parks on suburban or interurban lines. Parks on city lines should be at such a distance as will permit of carrying people each way for a five cent fare. If more than the regular fare is asked, the people naturally hesitate, and he who hesitates is lost—at least his nickel is lost to the company. On interurban lines the conditions are different, and parks may be placed at any distance from the terminus, provided that the park can be made sufficiently attractive and the patrons of the road made to believe that the company is giving them good value for their money. It is, however, generally conceded that the lower the fare the greater will be the patronage secured, always supposing that we have the centres of population to draw from. In fixing a tariff of fares to be charged there is a liability on the part of some railway com-

panies to fix the rates so low that they are below the actual cost of operating. This is a matter that should be very carefully considered by every street railway company, as it is often an easy matter when quoting a rate to make it so low that instead of deriving a profit, they are operating their cars at an actual loss.

Should amusements be provided in parks to induce the public to patronize them? The answer to this question will depend largely on the local conditions. If the park is on a city line or in close proximity to a city, the answer of the majority of street car managers would be in the affirmative. On interurban lines having parks 20 or 25 miles from a city there is liable to be a diversity of opinion as to how best to make them a source of revenue to the company. But the experience of companies which have tried it would go to prove that parks on interurban lines can be used to best advantage by utilizing them as picnic grounds. Encourage picnics of every description, church, Sunday school, club, society and picnics of all sorts and conditions. There should be a profit in carrying them to and from the parks; there should also be a profit derived from the park privileges, such as the renting of boats and the selling of refreshments, such as ice cream and peanuts—especially peanuts, and the small boy should be encouraged by every lawful means to consume them in large quantities.

The question may be asked here, should the company lease the park privileges, or should it keep them under its own control? There will no doubt be a diversity of opinion on this question. Some managers say and with some show of reason, that the company should operate and control the park privileges, thereby retaining any profits that may result from them. This reasoning looks fairly well on the surface. The municipal ownership advocate uses the same argument when he claims that the city should own and control its own street car lines, thereby securing to the city any profits that might be derived from it. The reply to this argument is, that the successful operation of park privileges is a business in itself and requires a man having experience and a practical knowledge of how to carry it on successfully. In regard to the leasing of park privileges it is generally conceded that a street railway company has plenty to do in attending to the operating of its cars, without going into the refreshment business.

What kind of amusements should be provided to induce the general public to patronize a park? The answer to this question will depend almost entirely on the locality. In some towns the company finds that more profit is derived from putting on the stage a fairly high-class opera. Of course it must be understood that in order to do this successfully, a suitable building must be provided, and an admission fee charged in proportion to the accommodation provided. In large city parks the varieties and kinds of amusements that may be secured are almost unlimited, and may range in value from the price of a few cuddies up to \$50,000 or \$100,000. In parks on interurban lines it will scarcely pay a company to expend too much money in securing park amusements, as it is almost impossible to obtain a sufficient attendance to justify the expenditure that would be required. Parks on interurban car lines can be made much more profitable by simply using them as picnic grounds. By judicious advertising, giving a satisfactory service and by making things generally pleasant, a large amount of this kind of traffic should be secured and should prove to be a source of revenue to the company.

In reference to the handling of park traffic, it will be generally admitted that the ordinary traffic to parks should be handled by the regular cars, the object of securing parks

and supplying amusement being to induce the public to patronize the cars already in operation. If extra cars are required to handle the traffic it means an increase of operating expenses, thereby lessening the profits. The problem of attending to the park traffic on suburban lines is not so easily solved. On account of the long distance of the haul and perhaps of the scarcity of the rolling stock, it is sometimes a difficult matter to know just how to solve the problem. Picnic parties on suburban lines should be sent on special car, and each passenger should (especially on the homeward trip) be supplied with a seat. This is sometimes not so easily accomplished, as a park crowd very often all wish to come home at the same time, and they sometimes feel inclined to grumble at the street car company because they cannot work a miracle and have cars waiting for the people at all times. In sending out special cars on suburban lines they should be sent as double headers or run in sections on the same time as the regular cars; this method of despatching cars being safer on a single track as it gives greater security in the operation of the cars and lessens the risk of accidents.

In order to have a neat and attractive looking park it is necessary that sufficient labor be expended on it to have it clean and tidy at all times. Have the grass properly cut, have plenty of seats. It has been suggested that cushions be provided instead of seats, but I would scarcely go so far as to recommend that.

In regard to the closing of the parks in the fall the mistake is made by some companies of keeping their parks open too late in the season, the weather at that time of the year being often wet and disagreeable.

It may safely be said in conclusion that the majority of street railway companies have found the owning and controlling of parks to be a profitable investment.

Commutation Tickets.

By C. K. Green, Traction Manager, Hamilton Cataract Power, Light and Traction Co.

In discussing the question of commutation tickets, it is of course necessary to deal largely with the class of users. In dealing with this question I purpose giving my personal views on the subject. These views may not be in practice on the roads I represent; they may not be orthodox, and may have faults. But as I said, they are my own personal views. As I understand these discussions, the idea is that we present personal views instead of following well-defined rules, rules which have been adopted by each road from some other, rules which have been in use so long that each new line adopts them regardless of adaptability. Of course there are certain definite rules from which it would be detrimental for any management to depart. These rules mostly refer to the rate per passenger mile at which a passenger can be carried. My personal view can be summed up in a few words: I do not like commuters. You understand this is not a personal dislike. The best personal friends one can have are among commuters. The dislike is the dislike the manager of a road might feel towards a certain class of patrons. The company gives to this class an especially cheap rate—sometimes so low that if all traffic were carried at that rate, expenses could not be paid. In return for this, the company receives the continual patronage of the commuters; also their continual abuse, as to car service, general equipment, management, and, in fact, everything that can be thought of by the travelling public, and what they don't think of and growl about, is not worth mentioning. I believe a good, wholesome criticism is one of the best things in the world to make a management sit up, but

from the average commuter the criticism is a personal thing, based on personal feelings—a one-sided view with the one thought, that the road is nothing but a machine to grind the money from the public, and give as little in return as possible. He can only see the large amount he gives to the company. The fact that he gets value for his money, never enters his mind. The average commuter, in his continual morning and evening trip, soon loses sight of all the pleasures that present themselves to the occasional traveller. His trip is often made early in the morning, which is not liable to put him in the best

frame of mind. Then at night, tired and hungry, he is in little better condition. He therefore does all his travelling in an irritable state of mind, so it is no wonder that small things annoy him. The least delay is remembered and spoken of for days. His fellow passengers, who are in much the same frame of mind, and as nothing better presents itself, never tire of discussing the same topic—nothing is right, the management is rotten, the road no good, train service rank, accommodation disgraceful; in fact he seldom has a good word to say of the road. His advertisement is extremely detrimental. On the

other hand, the occasional traveller, as a general thing, enjoys his trip. The scenery to some extent is new and enjoyable, delays are of no importance. His time is entirely taken up with the view, and his fellow-passengers. He generally thoroughly enjoys his trip and speaks of it afterwards—a splendid advertisement. He cheerfully pays his fare, does not try to avoid the conductor; whereas the commuter sometimes thinks it is his duty to be missed by the conductor, or gives up his ticket with an injured expression. When we consider the benefit to the road of each passenger, we find many points in favor of

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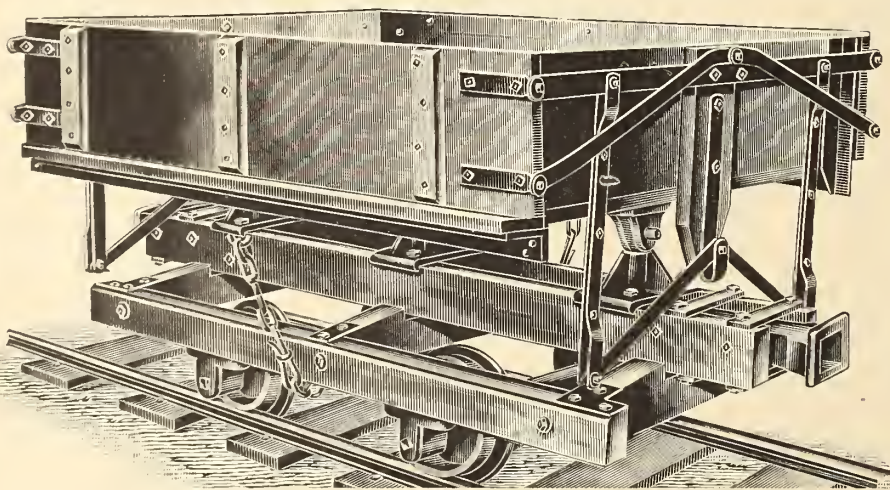
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the occasional traveller, and the faults of the commuter are so many that the difference in fare charged is often unjust. On many roads the difference in rate is considerable. My belief is that there should be little difference. The fare for the occasional traveller should not be lowered, but the rate for the commuter should be raised, so that a road may receive some compensation for the abuse and detrimental advertisement. The commuter, who is usually a workman, is an expensive passenger to handle. With these the car cleaning expenses are extremely high.

To this class of passengers are issued many kinds of commutation tickets. These tickets vary greatly in rates and restrictions. The only requirement may be that a certain number of trips must be purchased at one time, the advantages to the railway company being money in advance, and more frequent travel on account of tickets on hand. The price for tickets of this class should be little lower than the regular rates. A usual commutation ticket is issued for a family limited to a season. This is so easily and frequently abused by allowing friends to use it (the conductor not being able to distinguish) that it is really unrestricted, and has few advantages to the company over the unlimited ticket. Another class of ticket is a personal, limited, no-redemption ticket. This has a few good points, the money in advance, and no-redemption. Since the company furnishes the necessary train services both morning and evening, the fault lies with the commuter if he does not take advantage of it, therefore the company should not redeem unused portions. When these are not redeemed, endless friction is caused by passengers, all kinds of attempts to use the remaining trips are resorted to. The unredeemed portions are no doubt a small source of revenue to the company. Unless the conductor is very strict, the personal and unlimited clauses of the ticket will be abused. There is sometimes a further restriction to this class of ticket, viz.: certain trains. This is often good, and an extra source of revenue to the company when the commuter is required to take other trains. There is one further restriction—the ticket is only issued to a certain class of people. This latter restriction may or may not be legal, especially where it is a condition of the franchise, such as the workpeople's ticket, issued by the Hamilton and Dundas Ry. This may be class legislation. Commutation tickets vary from no restrictions to the greatest. Each have particular advantages, due largely to local conditions. The rates vary according to restrictions. I believe the rates are too greatly reduced as the restrictions are added. It seems to me there is too big a difference in rate at times between the unlimited and the limited. Account seems to be taken only of the limitations, and not of the chances of abuse, and general loss caused to the company thereby.

Two kinds of tickets may be used, tickets in book form from which tickets may be removed by conductor or passenger, or a card ticket which may only be punched by the conductor. Each of these have their advantages and disadvantages. The book form seems to be more frequently used, with positive instructions that the conductor must remove tickets from the book.

Every railway manager knows the difficulty with this order. Daily passengers soon become friends of the conductor, and in order to save time remove the ticket for him. It soon becomes the general manner of handling the ticket. Conductors knowing the passengers accepts the ticket detached from the book. This class of ticket is invariably abused in this way. A family ticket of this description is soon divided among members of the family. This of course cannot occur with a punch ticket. On the other hand conductors have nothing to show with

a punch ticket for fares collected. In case of a book ticket abused, one family ticket at a time supplies the whole family, but with punch tickets, a family generally requires several. Family punch tickets naturally become personal tickets, therefore of more benefit to the company. The ease and safety with which a conductor can pass a friend who is using a punch ticket is one of its greatest disadvantages. This may be overcome by the use of a special punch, which makes a peculiar noise when passing through the special paper used for this class of ticket, and also retains punched portions in a receptacle, punched portions being about half inch square. These punched pieces can be turned in by the conductor and therefore checked.

I would recommend the use of two classes of commutation tickets, viz., a family punch ticket, limited to the season and sold at a reduction of not more than 15% of the regular rates, the minimum charge per car mile being 1½c. As I stated this particular class of ticket would to a large extent be a personal one. The other class of ticket would be a student's, personal, non-redeemable ticket, limited to one month, school days and certain trains, sold at a minimum rate of ¾c. per car mile. I believe all commutation ticket business can be done most satisfactorily with these two tickets.

Grain Elevator Notes.

The Carberry Elevator Co. is erecting an elevator at Pleasant Point, Man.

S. P. Hodgson is having a 100 barrel flour mill and a 30,000 bush. elevator erected at Swan Lake, Man.

The Alberta Grain Co. will build an elevator at Camrose, Alta., as soon as the Canadian Northern Ry. reaches that place.

Two elevators belonging to E. Bewick, Shelburne, Ont., were destroyed by fire July 26. The total loss is \$30,000, the insurance being \$11,000.

The Brackman-Ker Milling Co. is erecting a new grain tank at Strathcona, Alta. It will have a capacity of 85,000 barrels of oats, and will cost \$20,000.

A contract has been let for the construction of a fireproof elevator and flour mill at Keewatin, Ont., to cost \$750,000, for the Keewatin Flour Mills Co.

The Goderich Elevator and Transit Co. has decided to rebuild its elevator at Goderich, Ont. The insurance claims have been satisfactorily settled. A contract for the reconstruction of the elevator have been let; the capacity of the new house will be 500,000 bush.

Speculation in July wheat on the Winnipeg Grain Exchange resulted in a number of "shorts" being caught. In some cases wheat which was at Kingston, Ont., or on the way there for export, was ordered back, and re-delivered into the elevators at Port William, Ont. This is the first occasion upon which wheat has passed westward through the Sault Ste. Marie canal.

The plans for the flour mill, storage warehouse and elevator at St. Boniface, Man., for the Western Canada Flour Mills Co., have been prepared and tenders asked. The mill will be of brick, 106 ft. high, with a 16 ft. cupola, and covering an area of 152 by 58 ft. The storage warehouse will also be of brick, 216 ft. long, 70 ft. wide and 60 ft. high. The elevator, which will have a capacity of 500,000 bush., will be of the tank type, constructed of solid concrete. The working house will be of corrugated iron, and will be fitted with the most modern grain cleaning and handling machinery, and automatic sprinklers. The entire milling and elevator plant will be operated by electricity.

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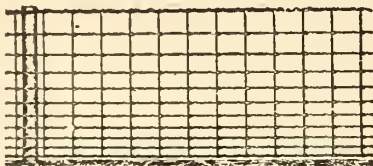
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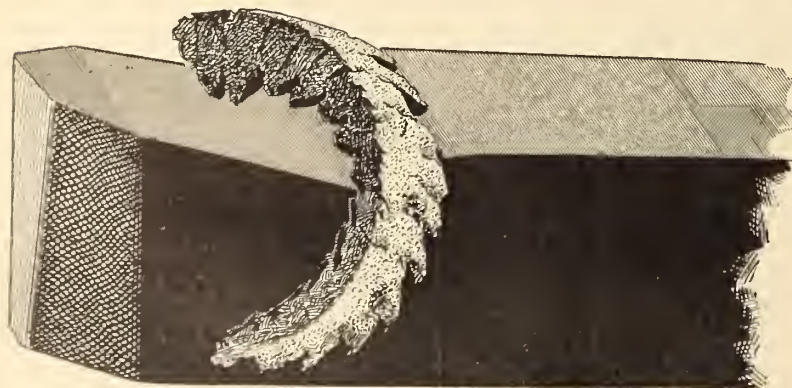
S.S. Kensington, Sept. 2; S.S. Canada, Sept. 9; S.S. Southwark, Sept. 16; S.S. Dominion, Sept. 23; S.S. Ottawa, Sept. 30; S.S. Kensington, Oct. 7; S.S. Canada, Oct. 14; S.S. Southwark, Oct. 21; S.S. Dominion, Oct. 28.

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ESTIMATES PROMPTLY FURNISHED.

SHIPPING MATTERS.

Maritime Provinces and Newfoundland.

The name of the schooner Congo, of Shelburne, N.S., has been changed to Gladys E. Whidden.

Capt. Kennedy, a well-known steamship captain, formerly in the Cunard service, died at Halifax, Aug. 16, aged 67.

Capt. S. Blandford was presented recently with a service of silver plate by Job Bros. & Co., St. John's, Nfld., on retiring from that firm's service.

The French steamer Pro Patria, which was wrecked in May off Fourchu, has been floated and towed to Sydney, N.S., for repairs. The wreck was sold by the underwriters for \$685.

The Dominion Government has renewed its contract with the Pickford and Black Co., Halifax, for a fortnightly service between Halifax, N.S., and the west coast of Newfoundland.

The new str. Ch. Knudsen, under charter to the Black Diamond Line, has been placed on her route carrying coal from Sydney, N.S., to Montreal. On her first trip she carried 6,850 tons of coal.

The Sydney, N.S., City Council has voted a free site for the projected shipbuilding plant there. The promoters of the enterprise are identified with the Cape Breton Coal, Iron and Ry. Co.

The Nova Scotia Government is making application to replace the draw bridge across the navigable channel of the Parrsboro River, Parrsboro, N.S., by a fixed span, and has filed plans at Ottawa and Parrsboro.

W. Richards, President, and A. E. Ings, director, of the Charlottetown Steam Navigation Co., are in England for the purpose of ordering a steamship to run between Point du Chene, N.B., and Summerside, P.E.I., to take the place of the Northumberland, which will be put on the Pictou-Charlottetown route. The str. Princess, now on this route, will probably be offered for sale.

The Department of Marine at present owns four ice-breaking steamers and has decided to construct a fifth, but by whom and where she is to be built has not been definitely decided. The Department has under consideration the construction of an additional steamer for the winter service between Prince Edward Island and the mainland. The ice-breaking steamers and the services in which they are engaged are: Champlain, engaged as a ferry steamer both summer and winter between Murray Bay and the Intercolonial Ry., at Riviere Ouelle, Que.; Montcalm, engaged as an icebreaker on the St. Lawrence River during the winter and as a lighthouse tender and supply boat during the summer; Minto and Stanley, employed keeping up communication between Prince Edward Island and the mainland during the winter.

A London, Eng., press despatch states that the Elder-Dempster Co. is prepared to run a line of steamers from Liverpool to Hudson Bay, on the completion of the Canadian Northern Ry. to a port there.

The Dominion Parliament at its last session passed an act providing that secs. 16 and 18 of the Seamen's Act, chap. 74, of the Revised Statutes, shall not apply to shipping masters and deputy shipping masters in British Columbia. In that province every shipping master, with the approval of the Minister of Marine, may now appoint not more than two deputy shipping masters, who shall receive not more than \$10 for any seaman hired or supplied, unless other terms are fixed by order-in-council. Notwithstanding this the sum to be deducted from the seaman's wages shall not exceed what would be allowed it when sec. 16 of the Seamen's Act was in force.

Province of Quebec Shipping.

E. G. Penny has been appointed a member of the Montreal Harbor Commissioners, to fill the vacancy caused by the resignation of J. Hodgson.

The Dominion Government has decided to complete the work of extending the Quebec breakwater 1300 ft. to the Louise docks, and has given the contract to Dessault and Lemieux.

The Wreck Commissioner's court has fined Pilot M. Labranche \$50 for a "grave error of judgment" in navigating the str. Agnar in the St. Lawrence River, July 17, owing to which she grounded.

The Minister of Marine has under consideration tenders for steel plates and shapes required for the construction of a hopper dredge, which it is proposed to build at the Government dockyard at Sorel, Que.

Shippers and shipowners at Glasgow, Scotland, claim that the dock charges at Montreal are too high, and that facilities for handling cargoes are far from being up-to-date. This latter matter is also being complained of by other shipowners.

By an act passed at the recent session of the Dominion Parliament the Montreal Harbor Commission has been authorized to expend a sum not exceeding \$6,000 upon the erection of a monument, within the limits of the harbor, to the late Hon. John Young.

The bill adding the Saguenay River to the Quebec pilotage district, abrogating the powers of the Quebec Harbor Commissioners as the pilotage authority for the district, and declaring such authority to be vested in the Minister of Marine, was passed at the last session of the Dominion Parliament. A clause in the act prevents the Minister from sitting as a tribunal for the trial of pilots for breaches of the pilotage regulations.

After considerable negotiations between the promoters of the proposed direct line from Quebec to Liverpool, Eng., and the Harbor Commissioners, an agreement has been reached. It was at one time feared that the negotiations would fall through owing to the Commissioners refusing to remove tonnage charges on freight east of the St. Lawrence River, and to extend the term after five years, provided the contract was satisfactorily carried out. A compromise was effected and the agreement finally approved Aug. 11. It is expected that the first steamer will sail from Quebec for Liverpool early in Oct.

Ontario and the Great Lakes.

The name of the Customs port of Rat Portage, Ont., has been changed to Kenora by Order-in-Council.

The new steamer building for the Union Steamship Co., of Hamilton, Ont., was launched at Dundee, Scotland, Aug. 16.

The names of the steamers Osceola of Hamilton, and Wanda of Toronto, have been changed to Golspie and Temagami, respectively.

The str. Turbinia has been chartered for the winter months for two seasons to run between the Florida mainland and Kingston, Jamaica.

The Canadian Fairbanks Co., Montreal, has been given the contract for supplying the transmission material to be used in the Cornwall canal repair shops.

The Pere Marquette Rd. is having two new freight steamers built, each having a capacity of 75 cars, to run between Conneaut, Ohio, and Roudeau, and Port Stanley, Ont.

The tonnage passing through the Canadian and U.S. canals at Sault Ste. Marie for July was 6,705,760 tons, of which \$30,017 passed through the Canadian canal.

Press reports state that the G.T.R. has practically completed negotiations for the purchase of a controlling interest in the Grand Trunk Car Ferry Co., Milwaukee, Wis.

The U.S. yacht Midget has been seized by Canadian customs officers at Brockville, Ont., on a charge of illegally carrying passengers between Brockville and Morristown, N.Y.

The New Ontario Steamship Co. has entered an action against the Montreal Transportation Co. for damages to its str. Neepawah in a collision in the Welland canal with the str. Westmount, which is alleged to have been at fault.

The str. Turbinia from Hamilton, Ont., and the Toronto Ferry Co.'s str. Primrose collided near Yonge st. wharf, Toronto, Aug. 12, causing considerable damage to the latter. An investigation has been held by Commander Spain, Wreck Commissioner, to decide as to the responsibility for the accident.

The Owen Sound Yacht Club has been incorporated under the Ontario Companies' Act, with a capital of \$3,000 and offices at Owen Sound, Ont., to own and operate pleasure yachts. The provisional directors are: A. G. Mackay, J. E. Keenan, M. Kennedy, F. W. Harrison, J. W. Maitland, A. J. Creighton, of Owen Sound.

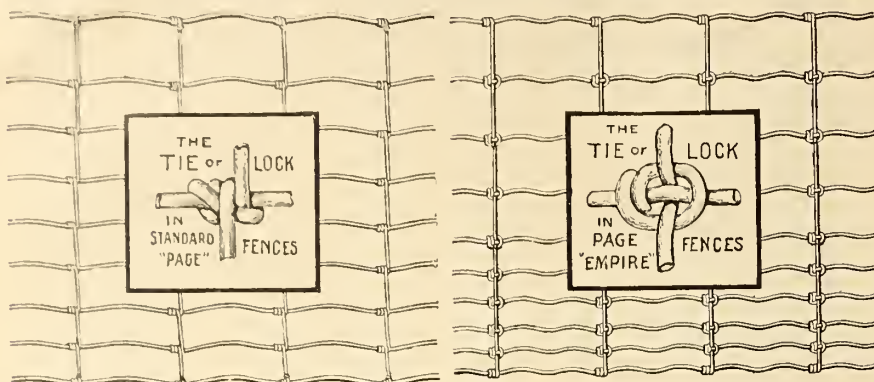
The Toronto Launch and Engine Co. has been incorporated under the Ontario Companies' Act, with a capital of \$40,000 and offices at Toronto, to carry on a boat building business, and to take over the business of J. C. McLachlan, of Toronto. The provisional directors are: J. C. McLachlan, J. G. Robinson, G. E. Buck, G. W. Hambly, R. G. Copeland.

The Toronto Ferry Co. has been incorporated under the Ontario Companies' Act, with a capital of \$600,000 and offices in Toronto, to run a line of ferry and excursion steamboats from Toronto to the Island and the summer resorts in the vicinity, and to establish summer hotels on the Island and at other points. The provisional directors are H. S. Osler, K.C.; W. B. Raymond, D.A. L. McCarthy, B. Osler and F. Ford, all of Toronto. The company proposes to construct two new ferry boats, and representatives of the company recently visited New York to inspect the ferry steamers there.

A difficulty has arisen in connection with the steamship inspection-reciprocity regulations, owing to some differences in the laws of the two countries, which C. F. Gildersleeve, ex-President of the Dominion Marine Association, says will have to be adjusted before the regulations are satisfactory. One unsatisfactory point is that the Canadian law requires all boats carrying passengers, no matter how small, to undergo inspection, but the U.S. laws do not require inspection unless they are over a certain tonnage. As the smaller steamers have no U.S. certificates they cannot obtain Canadian ones.

The U.S. Inspectors granted a certificate to the Thousand Islands Steamboat Co.'s str. New York, but the Canadian Inspector was of opinion that the vessel was not in accordance with the certificate, and declined to give a Canadian certificate under the recently approved inspection reciprocity regulations. H. S. Folger, Manager, took up the matter with the Minister of Marine, with the result that a further inspection was made by Chief Inspector Adams of Ottawa, and Inspector Duch of Quebec, and the certificate granted. In connection with the

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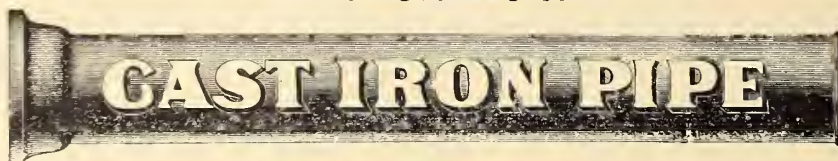
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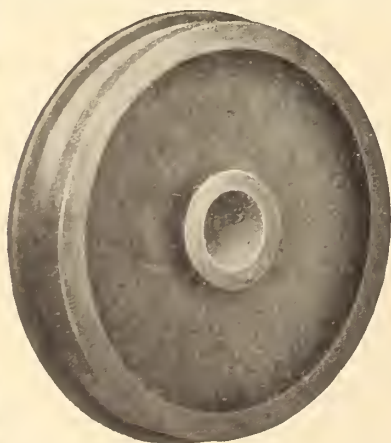


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matter charges were made against Inspector Davis, which were investigated privately, and a report has been made to the Minister of Marine.

The Canadian Towing and Wrecking Co. has been incorporated under the Ontario Companies' Act, with a capital of \$100,000 and offices at Port Arthur, Ont., to carry on a general dredging, towing, wrecking, and salvage company. The provisional directors are: J. Murphy, J. T. Horne, Fort William, Ont.; C. M. Bowman, Southampton, Ont.; J. Whalen, A. J. McComber, Port Arthur, Ont. A tug for the company was recently launched at Toronto. The hull is built of steel, and is specially constructed so as to be used as an ice-breaking steamer during the winter. Her dimensions are: length of keel, 98 ft.; length over all, 110 ft.; breadth, 24 ft.; draught, 12 ft.; and she is fitted with fore and aft compound engines, cylinders 20 and 40 inches by 36 in. stroke. Two barges are also being built at Toronto.

for traffic April 19, 1855. It was not until 1873 that the traffic through the canal exceeded 1,000,000 tons, and not until 1881 that it exceeded 2,000,000 tons. The lock has been enlarged and deepened and in 1896 the present one was completed, it being 800 ft. long, 100 ft. wide, and 20 to 22 ft. over the centre sills. The Canadian lock was completed in 1895, and is 900 ft. long, 60 ft. wide, and 22 ft. deep. The traffic through these locks for the season of 1904 was 31,456,106 tons, and during the present season to July 31 it was 19,837,204 tons.

Manitoba and the Northwest Territories.

The str. Neptune, taking supplies to the Dominion Government stations in Hudson Bay, sailed from Halifax Aug. 17. She will replace the Arctic now on the station, while the latter returns to Halifax for an overhaul and refitting.

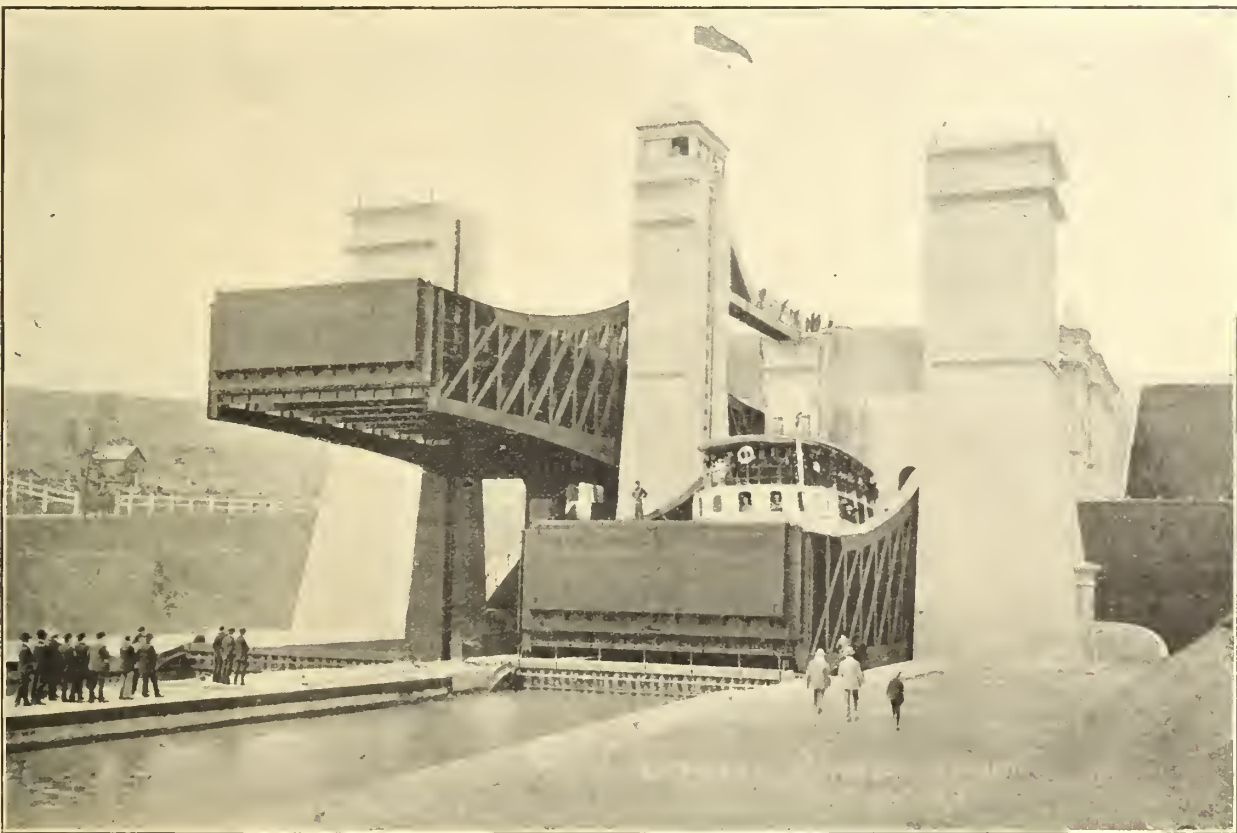
Act, with a capital of \$20,000, to carry on the shipbuilding business established at Vancouver, B.C., by A. Wallace.

The Dominion Government has renewed the contract with the Union Steamship Co., of New Zealand, for another year for the service between Vancouver, B.C., and Sydney, Australia. The subsidy is £37,000.

The new coast steamer for the C.P.R. will, it is reported, be built by the Esquimalt Marine Ry. There will also be built by the same company a steamer for the Dominion Government to engage in hydrographic work on the Pacific coast.

The Everett G. Griggs Ship Co. has been incorporated under the British Columbia Companies' Act, with a capital of \$64,000 and offices at Victoria, to carry on a general navigation business, and in connection therewith to purchase the sailing ship Lord Wolseley, of Victoria.

The Victoria Shipmasters' Association,



THE HYDRAULIC LIFT LOCK ON TRENT CANAL AT PETERBORO', ONT.

[From the report of the Bureau of Mines of Ontario.]

The 50th anniversary of the opening of the U.S. ship canal at Sault Ste. Marie, Mich., was celebrated there Aug. 2 and 3. The Dominion Government made an appropriation in connection with the celebration. J. C. Boyd, superintendent of the Canadian lock, having charge of the ceremonies in Ontario. R. Lemieux, Dominion Attorney-General, and Senator Dandurand were present at the festivities in Michigan to represent Canada. The first canal at Sault Ste. Marie was built on the Ontario side by the Northwest Company, a competitor of the Hudson's Bay Co., in 1797, but was abandoned on the failure of the company. It was only a very small affair, and it is claimed that its remains are used as a flume for the Lake Superior Power Co.'s plant. As a reminder a duplication of this original lock has been constructed at Sault Ste. Marie, Ont. The U.S. Government commenced the construction of a canal and lock in 1853, and it was opened

The Hudson Bay Co.'s str. Strathcona, on a recent trip between Edmonton, Alta., and Prince Albert, Sask., had a number of holes knocked in her hull by rocks in the bed of the river. An improvement of the river is necessary in order to permit its safe navigation for the increasing trade. At the recent session of the Dominion Parliament, \$5,000 was voted for the purpose of having a survey made. It is expected that the survey of the river between Edmonton and Lake Winnipeg will be started in Oct.

B.C. and Pacific Coast Shipping.

One of the torpedo boats sold at Victoria, B.C., by the British Admiralty has been converted into a trading steamer by the Nanaimo Fisheries Co., Nanaimo, B.C., and named Albatross.

The Wallace Shipyards has been incorporated under the British Columbia Companies'

which was started five years ago, has been incorporated under the British Columbia Companies' Act. It has 148 members and the officers for the current year are: President, Capt. Wilbur; Secretary, Capt. M. K. Morris; Treasurer, Capt. J. Newcomb.

General Superintendent Marpole states that the reported sale of the str. Charnier by the C.P.R., to the Pacific Coast Steamship Co., is without foundation. A statement was subsequently made that she would be chartered free to the P. C. S. S. Co. for a year, on this company agreeing to wipe out all claims against her on account of a collision with the str. Willimanette.

The Judicial Committee of the Privy Council, London, Eng., has refused permission to the C.P.R. to appeal against the decision of the courts in the case arising out of the collision between the company's str. Empress of India and a Chinese cruiser.

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LIST OF STEAMSHIPS REGISTERED IN CANADA FROM JULY 15 TO AUG. 15.

Name.	No.	When and Where Built.	Engines, etc.	Length	B'dth.	Depth	Gross tons.	Reg. tons.	Home Port.	Owners.
Admiral Togo	108,973	Port Greville, N.S., 1905.	Screw 2 N.H.P.	28.0	9.0	3.6	5	4	Dorchester, N.B.	E. Cole, Dorchester, N.B.
Ariel	121,673	Vancouver, B.C., 1905.	" 2 "	40.0	8.2	3.6	12	8	Vancouver, B.C.	G. E. Bower, Vancouver, B.C.
Beaver	117,109	Kingston, Ont., 1901.	" 1 "	36.0	9.0	3.0	2	2	Ottawa, Ont.	D. W. O'Connor, Temagami, Ont.
Beaver	117,119	Vancouver, B.C., 1905.	" 4 "	46.5	11.0	4.5	20	14	Vancouver, B.C.	A. M. Edwards, Vancouver, B.C.
Bolton	117,107	Toronto, Ont., 1905.	" 4 "	66.0	11.6	5.6	30	18	Ottawa, Ont.	F. W. Hendry, et al., New Liskeard, Ont.
Dolphin	116,304	Charlottetown, P.E.I., 1904	" 1 "	34.2	9.4	3.9	7	7	Charlottetown, P.E.I.	E. S. Kerry, Charlottetown, P.E.I.
Dorothy	117,110	Cache Bay, Ont., 1903.	" 4 "	48.0	9.0	3.0	12	8	Ottawa, Ont.	Booth & Gordon, Pembroke, Ont.
Georgia	116,931	Victoria, B.C., 1900.	" 12 "	60.0	11.3	5.0	34	24	Victoria, B.C.	Minister of Marine and Fisheries, Ottawa.
Grace M.	121,703	Gravenhurst, Ont., 1905.	" 10 "	68.5	14.0	5.1	61	27	Toronto, Ont.	M. Dymont & Son Co., Gravenhurst, Ont.
Gypsy	117,120	Vancouver, B.C., 1905.	" 5 "	46.2	12.5	5.3	27	18	Vancouver, B.C.	B.C. Mills Timber and Trading Co., Vancouver, B.C.
Helena	117,123	Kingston, Ont., 1905.	" 5 "	44.5	8.7	3.1	10	7	Kingston, Ont.	J. H. Davis, Kingston, Ont.
Hiawatha	121,704	Port Carling, Ont., 1905.	" 2 "	49.0	10.6	3.7	27	18	Toronto, Ont.	T. B. & A. Croucher, Port Carling, Ont.
Hunter W.	116,990	Detroit, Mich., 1905.	" 2 "	18.8	5.0	2.0	1	1	Kenora, Ont.	R. Wolff, Kenora, Ont.
Island Queen	117,078	Toronto, Ont., 1905.	" 16 "	97.8	20.3	9.4	129	88	Toronto, Ont.	Toronto Ferry Co. (Ltd.), Toronto.
Jap.	117,191	Kenora, Ont., 1905.	" 1 "	23.0	6.0	2.5	3	2	Kenora, Ont.	Scott & Hudson Bldg. Co., Kenora, Ont.
Lord Wolseley	116,728	Parrsboro, N.S., 1905.	" 16 "	68.8	18.0	8.0	73	50	St. John, N.B.	J. E. Moore, St. John, N.B.
Marie	117,108	Toronto, Ont., 1902.	" 4 "	33.5	8.5	3.0	4	3	Ottawa, Ont.	H. O'Connor, Temagami, Ont.
Mary	117,027	Mahone Bay, N.S., 1905.	" 4 "	52.0	14.3	6.6	19	18	Sydney, N.S.	H. McDonald, Glace Bay, N.S.
Minetta	121,701	Minett, Ont., 1905.	" 4 "	51.0	8.7	3.0	11	7	Toronto, Ont.	H. C. Minett, Minett, Ont.
Oseola	112,204	Bay City, Mich., 1882.	" 69 "	183.5	33.9	13.5	1122	709	Hamilton, Ont.	Wm. Magee, Hamilton, Ont.
R-Tis-3	116,305	Charlottetown, P.E.I., 1905	" 5 1/2 "	25.4	7.5	3.4	3	3	Charlottetown, P.E.I.	H. H. Crossman, Charlottetown, P.E.I.
Spry	117,122	U.S.A., 1877.	" 4 "	48.8	7.9	3.3	19	13	Kingston, Ont.	J. H. Davis, Kingston, Ont.
Winona	121,706	Toronto, Ont., 1905.	" 1 "	47.5	10.0	4.3	20	13	Toronto, Ont.	W. P. Murray, Toronto

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM JULY 15 TO AUG. 15.

Name.	No.	When and Where Built.	Reg.	Length	B'dth.	Depth	Gross tons.	Reg. tons.	Home Port.	Owners.
Agnes E.	121,700	Cape Island, N.S., 1904.	Sloop	31.0	11.8	6.0	10	10	Yarmouth, N.S.	O. Phillips, Cape Island, N.S.
Argo	121,698	Tusket Wedge, N.S., 1904.	"	32.0	11.0	6.0	10	10	"	M. Boudreau, Tusket Wedge, N.S.
Aroma S.	121,695	Pubnico, N.S., 1904.	"	34.0	11.4	6.0	10	10	"	L. C. Amiro, Pubnico, N.S.
Augusta	121,685	Tusket Wedge, N.S., 1904.	"	34.0	11.0	6.0	11	11	"	L. D. Boudreau, Tusket Wedge, N.S.
Beatrice	117,185	Elm Tree, N.B., 1905.	Schr.	65.0	19.0	7.5	51	51	Chatham, N.B.	N. H. Ray, Glen Tree, N.B.
Bella Rose	116,303	Bayfield, P.E.I., 1905.	"	41.6	13.6	5.8	21	21	Charlottetown, P.E.I.	M. Rose, Bayfield, P.E.I.
Ben Lomond	117,192	Keewatin, Ont., 1897.	Barge	50.0	20.5	4.4	45	45	Kenora, Ont.	H. J. Davis, Kenora, Ont.
Britannia	116,857	Shelburne, N.S., 1905.	Schr.	64.4	18.8	7.2	48	48	Shelburne, N.S.	G. B. Ellis, Alberton, P.E.I.
Cap a la Roche	116,604	St. Jean des Chaillons, 1905	Barge	96.0	23.6	7.2	106	98	Montreal.	A. Laroche, St. Jean des Chaillons, Que.
Claymore	121,681	Barrington, N.S., 1904	Sloop	33.0	11.0	6.0	10	10	Yarmouth, N.S.	D. A. Gardier, Clarke's Harbor, N.S.
Columbia	121,694	Tusket Wedge, N.S., 1905.	"	34.0	11.6	6.0	10	10	"	N. S. Boudreau, Tusket Wedge, N.S.
D. E. Nickerson	121,683	Barrington, N.S., 1905.	"	33.0	11.3	6.0	10	10	"	J. L. Nickerson, Clarke's Harbor, N.S.
Dora Lee	121,686	Tusket Wedge, N.S., 1904.	"	32.0	11.0	6.0	10	10	"	J. P. Cotreau, Tusket Wedge, N.S.
Eddie C.	121,791	Port Clyde, N.S., 1905.	"	30.0	11.0	6.0	10	10	"	C. D. Cooke, Port La Tour, N.S.
Ethel May	121,688	Clarke's Harbor, N.S., 1904	"	33.0	11.4	6.0	10	10	"	S. Messenger, Cape Island, N.S.
Freddie M.	121,697	Cape Island, N.S., 1904.	"	31.0	11.5	6.0	10	10	"	N. Crowell, Cape Island, N.S.
Josephine	121,692	Cape Island, N.S., 1904.	"	33.0	11.0	6.0	10	10	"	F. Newell, Cape Island, N.S.
Little Charley	121,693	Cape Island, N.S., 1904.	"	33.0	11.3	6.0	10	10	"	H. Newell, Cape Island, N.S.
Lorain	116,729	Cumberland Bay, N.B., '05	Schr.	60.2	22.4	5.6	53	53	St. John, N.B.	A. Gale, Waterborough, N.B.
Maccabee	121,691	Port Maitland, N.S., 1904.	Sloop	34.0	10.3	5.5	10	10	Yarmouth, N.S.	E. Ellis, Port Maitland, N.S.
Monitor	121,687	Tusket Wedge, N.S., 1904.	"	32.0	11.0	6.0	10	10	"	A. Doucette, Tusket Wedge, N.S.
Ocean Belle	121,689	Cape Island, N.S., 1904.	"	33.0	11.0	6.0	10	10	"	B. J. Newell, Cape Island N.S.
Premier	116,605	Montreal, 1905.	Dr'dge	86.0	31.5	9.2	177	177	Montreal.	F. Gilbert, Montreal.
Quickstep	121,682	Clarke's Harbor, N.S., 1904	Sloop	32.0	10.6	6.0	10	10	Yarmouth, N.S.	C. Maxwell, Clarke's Harbor, N.S.
Seaton L.	121,684	Clarke's Harbor, N.S., 1904	"	33.0	11.4	6.0	12	12	"	W. H. Kenny, Clarke's Harbor, N.S.
Spud	121,672	New Westminster, B.C., '04	Scow	50.0	22.0	5.4	51	51	Vancouver, B.C.	J. A. Croll, New Westminster, B.C.
Squid	121,671	New Westminster, B.C., '04	"	50.0	22.0	5.4	51	51	"	J. A. Croll, New Westminster, B.C.
Temeraire	121,707	Oakville, Ont., 1905.	Sloop	50.0	10.0	6.0	18	18	Toronto.	F. Nicholls, Toronto.
Tethys	116,964	West Isles, N.B., 1896.	Schr.	38.0	14.2	7.6	20	20	St. Andrews, N.B.	G. L. Johnson, West Isles, N.B.
Three Brothers	117,184	Shippegan Island, N.B., '05	"	41.7	13.4	5.4	16	16	Chatham, N.B.	D. P. Chiasson, Shippegan Island, N.B.
Una	121,699	Cape Island, N.S., 1905.	Sloop	31.0	11.6	6.0	10	10	Yarmouth, N.S.	W. C. Nickerson, Cape Island, N.S.
Winnifrid	121,690	Cape Island, N.S., 1904.	"	32.0	11.0	6.0	10	10	"	A. Nickerson, Cape Island, N.S.
W. J. Britcliffe	121,696	Wood's Harbor, N.S., 1904	"	35.0	11.8	5.5	10	10	"	G. W. Smith, Woods' Harbor, N.S.

NOTE.—The list of vessels given in our Aug. issue included those registered between June 15 and July 15, and the dates mentioned in previous issues should be corrected so as to correspond with these dates.

Marine Votes for 1905-06.

The following sums were voted by the Dominion Parliament at the recent session, for the Public Works, Marine and Fisheries, and Trade and Commerce Departments in aid of the general navigation and marine interests of the country:—

Mail subsidies and steamship subventions.	\$1,222,221.80
OCEAN AND RIVER SERVICE.—	
Maintenance and repairs to government steamers and icebreakers.	475,000.00
New boilers for str. Aberdeen.	17,000.00
Extension of coast service on north and northwestern coasts.	65,000.00
Miscellaneous votes.	168,575.00
HYDROGRAPHIC SERVICE.—	
Surveys.	160,000.00
To purchase steamer for Atlantic coast service.	75,000.00
To purchase steamer for Pacific coast service.	75,000.00
FISHERIES PROTECTION SERVICE.—	
To provide new boiler for str. Petrel.	17,000.00
LIGHTHOUSE AND COAST SERVICE.—	
Construction.	1,081,000.00
Maintenance.	675,000.00
Salaries and allowances.	238,000.00
Repairs to str. Scout.	21,000.00
Miscellaneous votes.	255,090.00

INSPECTION SERVICE.—

Steamboat inspection and inspection of Dominion steamers and fog alarms. 37,700.00

QUARANTINE SERVICE.—

New steamer for Grosse Isle. 55,000.00
New steamer for William Head. 20,000.00

MARINE HOSPITALS, ETC.—

Hospitals and shipwrecked mariners, etc. 60,000.00

ST. LAWRENCE CHANNEL.—

General works. 588,000.00
Reducing shoals west of Cornwall, Ont. 5,000.00
Dredge for channel below Quebec. 100,000.00
Permanent piers on Lake St. Peter, Que. 115,000.00
Compensation to heirs of J. Pauls, killed by explosion on dredge J. Israel Tarte. 4,000.00
To complete channel at Galops Rapid forming north channel between Galops and Adams Islands. 70,000.00

CANALS.

Staff and repairs. 803,039.00
Salaries, etc. 55,835.00
Salaries of extra clerks, etc. 1,000.00
Beauharnois canal—repairing weir, etc. 10,600.00
Carillon and Grenville Canal—repairs, etc. 28,900.50
Chaunally canal—renewing bridges, etc. 28,300.00
Cornwall canal—rebuilding piers, etc. 49,514.60
Farran's Point canal—acetylene gas

apparatus.	300.00
Galops canal—removing shoals.	5,000.00
Galops canal—enlargement, etc.	160,000.00
Lachine canal—machinery, electric installation, etc.	21,300.00
Lachine canal—rebuilding bridges and repairs.	108,705.00
Lachine canal—rebuilding wharves, etc.	95,200.00
Lachine canal—enlargements, etc.	61,560.00
Murray canal—rebuilding piers.	18,000.00
Quebec canals—re-marking boundaries.	2,600.00
Rapide Plat canal—enlargement upper entrance.	4,200.00
Rideau canal—rebuilding and repairs.	13,300.00
Rideau canal—new ferry scow.	300.00
St. Lawrence canals enlargement.	7,000.00
St. Anne's Lock—repairs.	1,900.00
St. Onrs canal—new booms, piers, landing wharf.	11,800.00
St. Peters canal—dredging and repairs.	4,000.00
Soulanges canal—general repairs.	16,200.00
Soulanges canal—new construction, workshops, etc.	41,500.00
Soulanges canal—steel bridge at power house.	500.00
Trent canal—construction.	300,000.00
Trent canal—improvements.	17,000.00
Trent canal—extension to Newmarket.	100,000.00
Trent Canal—surveys.	53,000.00
Trent canal—new plant.	19,000.00
Trent canal—dams taken over, surveys, etc.	11,000.00

Trent canal—miscellaneous votes....	9,000.00
Welland canal—electric light and power plant.....	140,000.00
Welland canal improvements, repairs, etc.....	462,228.66
Williamsburg canal—steam hoist and pump.....	1,500.00
Surveys of projected Georgian Bay-Montreal canal.....	70,000.00
HARBORS AND RIVERS, ETC.—	
Extension of breakwaters, etc., P.E.I. Construction of piers, wharves, breakwaters, etc., dredging of rivers, waterways and harbors, and other works connected with the improvement of navigable waterways in the Dominion, in—	89,000.00
Prince Edward Island at four points	4,350.00
Nova Scotia at 164 points.....	609,500.00
New Brunswick at 35 points.....	507,020.00
Maritime Provinces generally.....	30,000.00
Quebec Harbor improvements.....	50,000.00
Quebec Province at 159 points.....	1,083,631.00
Ontario at 98 points.....	1,230,656.00
Fort William and Port Arthur harbors.....	26,000.00
Manitoba at 11 points.....	33,600.00
Northwest Territories, generally.....	5,000.00
Northwest Territories, survey of the North Saskatchewan river.....	5,000.00
British Columbia at 32 points.....	45,000.00
Vukon Territory.....	15,000.00
Generally.....	8,500.00
DREDGING.—	
Repairs to dredges, etc.....	101,000.00
Prince Edward Island—new plant..	55,000.00

Maritime Provinces—new plant....	160,000.00
Maritime Provinces—work.....	155,000.00
Ontario and Quebec—new plant....	215,000.00
Ontario and Quebec—work.....	220,250.00
Manitoba—new plant.....	40,500.00
Manitoba—work.....	20,000.00
British Columbia—new snag boat, etc.	30,000.00
British Columbia—work.....	40,000.00
General services.....	5,000.00
New plant generally.....	450,000.00

A proposition has been made favoring the granting of a bounty of \$5 per register ton on steel ships built in Canada.

The Dahomey, the second steamer on the Montreal-Halifax-Mexico route, sailed from Montreal Aug 26, with practically a full cargo. The Angola sailed on her return voyage from Mexico Aug. 27, with a full cargo, and a good number of passengers.

The contract for carrying the mails between Canada and Great Britain expires in Aug., 1906, and a renewal for five years has been given to the Allan Line. It is understood that a decision has been reached that in all future contracts the steamers will have to call at Sydney, N.S., to deliver the mails during that period of the year they run south of Belle Isle.



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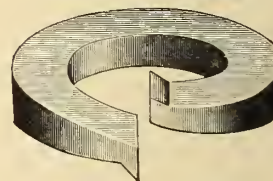
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The General Railway Signal Company has acquired the American assets and properties of the Taylor Signal Company, of Buffalo, N. Y., and of the Pneumatic Signal Company, of Rochester, N. Y., and is prepared to furnish and install approved forms of mechanical, pneumatic, electro-pneumatic and electric interlocking devices, track circuit appliances, motor signals, railway gates, etc.

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Stranding of the S.S. Argyle.

The str. Argyle ran on a rock in a fog near Oshawa, Ont., July 29, but the passengers were got off without mishap. The steamer was floated three days later by the Donnelly Salvage and Wrecking Co., and was towed to Whitby, and subsequently to Kingston, Ont., where she was repaired, and later on resumed her run between Toronto and Oshawa. An investigation into the cause of the stranding was held by Commander Spain, Wreck Commissioner, assisted by Capt. T. Donnelly, Aug. 8. Commander Spain has given the following judgment:—"The steamer Argyle, of Picton, Ont., left Toronto at 8.20 a.m., on July 29, bound for Oshawa, Ont., with an excursion party of 150 passengers on board. The weather was foggy from the time the Argyle left the eastern gap, outside Toronto, until she struck. The Argyle was commanded by Captain Wm. Manson, who holds a certificate of competency for the inland waters, issued in Toronto in Mar., 1885. From the sworn evidence given during the inquiry by the Inspector of Hulls, the equipment in regard to life belts and life-saving apparatus generally, boats, etc., was sufficient and up-to-date. The mate testified that fire and boat drill had been carried out on board the ship at least once a week. The steering gear was in good order, and no complaints were made about it. The compasses were not correct, and the captain had no idea of the deviation; and so far as the court was able to ascertain, the compasses had not been corrected for a very long time. The court is of opinion that the accident to the Argyle was caused by gross carelessness on the part of the captain in running the vessel at full speed in a dense fog from the time of leaving the eastern gap, Toronto, until she ran ashore near Corbett's Point, near Oshawa. The lead was not used, and apparently the captain had no idea of the correct compass course. The course steered was the usual one, and the reason for steering this course, as given by the captain, was that he had always done so, and the ship had gone clear, and he supposed she would go clear again. Taking all these facts into consideration, the court suspends the certificate of competency for inland waters of Captain Wm. Manson for 12 months, to date from the time of the accident, July 29, 1905. The court also wishes to point out that it is to be hoped that the method of navigation pursued on board the S.S. Argyle is not usual on board passenger steamboats on the lakes; otherwise there is no doubt that some appalling disaster must occur sooner or later."

Notices to Mariners.

The Department of Marine has issued the following notices to mariners:

No. 55. July 8.—Nova Scotia—140. South coast, off Ship harbor, Little Rock, whistling buoy established. 141. Cape Breton Island, east coast, Sydney harbor entrance, sunken wreck.

No. 56. July 8.—Near the boundary line between Ontario and Ohio—142. Lake Erie, uncharted shoals north of Bass Islands.

No. 57. July 10.—British Columbia—147. Vancouver Island, west coast, Barkley Sound, Carolina channel, off Amphitrite, whistling buoy established. 146. Vancouver Island, Juan de Fuca Strait, Port San Juan, whistling buoy established. 147. Strait of Georgia, sandhills at entrance to Fraser River, lightship to be established. 148. Queen Charlotte Sound, Broughton Strait, Malcolm Island, Græme point, light to be established.

No. 58. July 10.—Quebec—150. Lake St. John, Roberval, change in range lights.

No. 59. July 14.—British Columbia—151. Trincomali channel, Atkins reef, change in color of beacon. 152. Trincomali channel, Walker rock, change in color of beacon.

No. 60. July 15.—Ontario—153. Georgian Bay, west side, Cape Croker light station, new fog alarm building, change in fog alarm.

No. 61. July 15.—Quebec—154. Gulf of St. Lawrence, Gaspé bay, entrance to Gaspé basin, Sandy beach point change in character of light. 155. Gulf of St. Lawrence, Magdalen Islands, Bird rocks, character of light.

No. 62. July 20.—New Brunswick—158. South coast, Bay of Fundy, Passamaquoddy bay, St. Andrew's Harbor, eastern entrance, change in character of buoy. Nova Scotia—159. South coast, off Jeddore head, sunken wreck.

No. 63. July 22.—Nova Scotia—164. Cape Breton Island, south coast, Madame Island, Beak point, whistling buoy to be established.

No. 64. July 24.—Ontario—166. Lake Huron, west side, Southampton, fog whistle established.

No. 65. July 25.—Quebec—167. River St. Lawrence, Lake St. Peter, Louiseville range, lighthouse foundation placed.

No. 66.—July 27.—Quebec—168. Gulf of St. Lawrence, north side, off Great Meccatina Island, Flat Island, beacon rebuilt. 169. River St. Lawrence, chart, Longue Pointe to Varennes, issued.

No. 67. July 29.—170. A list of all the lights and fog signals in the Dominion, corrected to April 1, 1905, has been issued by the Department of Marine, and copies can be obtained free on application. Newfoundland—171. East coast, Notre Dame Bay, Great Dinner Island, change in color of light.

No. 68. July 29.—British Columbia—172. Victoria Harbor, Brocton ledge beacon, fog bell established, fog horn discontinued. 173. Millbank Sound, Vancouver rock, whistling buoy established.

No. 69. Aug. 2.—Ontario—174. Detroit River, Amherstburg reach, Elliott point range lights and float lights changed in position.

No. 70.—Aug. 2.—Nova Scotia—175. Bay of Fundy, Lurcher shoal, gas and whistling buoy placed temporarily. 176. South coast, Port Monton, buoys established.

No. 71. Aug. 4.—Quebec—177. River St. Lawrence, Baie St. Paul, Cap-au-Corbeau, light established.

Grain Carriers for the Lakes.

A. A. Wright, of Toronto, recently wrote the Toronto Globe in reference to an interview in which D. McNicoll, Vice-President of the C.P.R., was quoted as saying that more grain carrying vessels would be required on the Great Lakes. Mr. Wright said: "I am afraid your correspondent has misunderstood Mr. McNicoll about requiring more grain carriers on the lakes, as it has been amply demonstrated during the past two years that there are twice as many Canadian-owned grain carriers as the C.P.R. can load promptly at Port William, to say nothing of the fact that the present fleet of Canadian-owned steamships, if they could be loaded and unloaded with any reasonable despatch, could fill all of the terminal elevators at lower lake ports in two weeks. Possibly Mr. McNicoll had this in view, if he mentioned getting more grain carriers, as he probably expected to require them to store the grain in at lower lake ports, owing to the lack of elevator facilities there. It is

well known in the trade that many first-class steel grain carriers have not carried a bushel of grain this season, and the most fortunate have only carried from two to five cargoes, in practically half of the season of navigation. If anything like the anticipated quantity of wheat is to be moved this fall there will be a complete blockade of grain shipments, not from lack of vessels, but from the annual shortage of cars and lack of terminal facilities at Ontario points, together with the poor system, or lack of system, at present in use at Fort William and Port Arthur for loading vessels. Between the shipper and the railway companies, boats are run backward and forward between the two ports, calling at all the elevators for a portion of their cargo, often at the expense of several hundred dollars to the steamer, merely to save the shippers a few dollars on the expiry of free storage on their grain. Another matter which will seriously affect business in the fall if there is a rush to get out grain is the Government regulations prohibiting the loading of grain after dark, unless the shipper relieves inspectors of responsibility. If it takes from two to four days, as it has done in the past under some conditions, to load approximately 100,000 bush. on a steamer, it can readily be seen what the situation will be if 30 Canadian vessels per week go into Fort William or Port Arthur for cargoes, which would be the case were there business to warrant it, and facilities for prompt loading there and unloading at the other end. If the C.P.R. is thinking of putting on a fleet of grain carriers it is to be hoped Mr. McNicoll will give some of the present owners a chance to unload on them a few of their modern grain carrying vessels. As the railways justify the shortage of cars every fall by saying they cannot be expected to have sufficient cars to take care of these annual rushes, it can readily be seen how they would enjoy having not only enough, but more than enough vessels to take care of twice the business ever offered during the rush seasons, which will last about two weeks in the spring and a month in the fall, and then see them lie idle for five months of winter, and often run at a loss the rest of the season of navigation."

The Lake Freight Situation.

Our Winnipeg correspondent wrote on Aug. 15: "The grain trade, from the vessel standpoint, still continues dull, as about the total stocks of wheat at Port Arthur and Fort William are still in the hands of the crowd who cornered the Winnipeg July option, and while the corner was successful so far as securing all the contract wheat was concerned, the decision of the Winnipeg Exchange Arbitration Committee that \$1.16 should be the settling price instead of the close, \$1.35, has without doubt caused the "longs" to miss the cream of the corner, and will no doubt prevent any future attempt to corner the Winnipeg market. The effect of the corner was to practically stop all shipping during the month, and even yet the trade has not recovered from the effects, and the cornered wheat is still held too high for eastern millers and the export trade, in the face of the splendid crop now growing. Both the grain trade and the railways now figure that the growing crop will average 25 bushels to the acre at least, and are looking for a wheat crop alone of at least 100,000,000 bush., with other grains in proportion. So far as the vessel interests are concerned, a wheat crop of 100,000,000 bush. will mean a steady eastbound business all next season, provided the eastern Canada grain routes can be kept free of blockades, otherwise Buffalo will reap the benefit, as the crop will be an export one and therefore shippers will not be tied down to



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using Canadian routes on account of the option of using their wheat for domestic trade in Ontario and Quebec. Lake freights for the fall months are bound to be high, as the extremely heavy movement of ore east-bound and coal westbound gives the vessels something to work against the grain trade, and this competition will have the usual effect of putting rates up. Even now 2½ cents is being freely bid by Duluth shippers for tonnage for the first half of Sept., whereas last year at this time 1½ cents was the going rate. While the coal movement so far has been fair, there is still a tremendous amount of coal to come up to supply both the American and Canadian west, but no fear is expressed as to any shortage as the recent addition of several 10,000 ton vessels to the American fleet is somewhat of a guarantee that the present fleets can take care of all business offering. The steel rail movement still continues good and no doubt will continue until the close of navigation, as there are still a number of large orders yet to be filled by the mills. No changes are reported in any of the above commodities for first half Sept. so far as Canadian vessels are concerned."

Admiralty Court Jurisdiction.

The judgment of Judge Hodgins, in the Admiralty Court sittings at Toronto, upon the action of the owners of the Monguagon, a sailing vessel, against the str. D. C. Whitney, both United States vessels, for damages arising out of a collision in Sandusky harbor, Ohio, Nov. 28, 1901, deals at considerable length with the question of the jurisdiction of the court. This question was raised by the owners of the D. C. Whitney, and was their principal ground of defence. The steamer was arrested in Canadian waters Nov. 14, 1902. The judgment shows that the Admiralty Court in Canada has the same powers and jurisdiction that the High Court of Admiralty in England has, such being conferred by the Imperial Act of 1890. The High Court of Admiralty has always held that it had jurisdiction in cases of this kind, and a number of cases were cited in proof of this contention. It had also been decided in 1839 that cases of collision were communis juris, and this view was endorsed in 1859, Admiralty Judge Lushington in a judgment at Swansea, Wales, stating: "In cases of collision it has been the practice in this country, and, so far as I know of the European states, and of the United States of America, to allow a party alleging a grievance by a collision, to proceed in rem against the ship wherever found. And this practice, it is manifest, is most conducive to justice, because in many cases a remedy in personam would be impracticable." In 1860 the Canadian Admiralty Court held that it had jurisdiction in a case of collision between French and Norwegian vessels on the high seas; and the U.S. Admiralty Courts have at different times exercised their jurisdiction in such cases. In 1867 the U.S. Admiralty Courts disposed of a case respecting a collision between a Dutch schooner and a Russian barque in the North Sea, and in 1868, the U.S. Supreme Court decided that its Admiralty Courts had jurisdiction to try cases of collision in Canadian waters. The other main defence was "inevitable accident," but it was held that the weight of evidence satisfied the court that the term was not applicable to the case according to the definition given in already decided cases. The owners of the Monguagon were given a decree declaring the str. D. C. Whitney liable for damages caused by the collision and a reference was made to the Deputy Registrar at Windsor, Ont., to assess the damages, and to tax the costs of the action and reference.

Among the Express Companies.

The Dominion Ex. Co. has closed its offices at Doon and Ratz Ont.

The Dominion Ex. Co. has closed its wagon route between Galt and Doon, Ont.

The Dominion Ex. Co. has opened offices at Big Dan, Coe Hill, Dougherty, Johnny Lake, Mud Lake, Mulock, Osborne, Rib Lake, Riddell Creek, Twin Lake, Widdifield and Woodland. With the exception of Coe Hill, all these points are on the Temiskaming and Northern Ontario Ry.

The American Ex. Co. is authorized to waybill shipments of fruit originating at points on the Toronto, Hamilton and Buffalo Ry., destined to common points of the Dominion Ex. Co. with the Canadian Ex. Co., west of and including Peterboro', Ont., through to destination at rates mentioned in circular 35, minimum charge 35 cents.

The Canadian Bankers' Association has decided to give the same rates for money orders as the post office and the express companies. Cheques, under the new rates, will be put through for a charge of 3 cents for amounts under \$5; for 6 cents for amounts from \$5 to \$10; for 10 cents for amounts from \$10 to \$20; and for 15 cents for amounts from \$20 to \$50.

Telegraph and Cable Matters.

The G.N.W. Telegraph Co. has opened offices at Helderleigh, Ont.; Cape Despair Light, Lemieux, Perthuis, Que.

Arrangements are being made for the establishment of Marconi Wireless Telegraph stations at Owen Sound and Sault Ste. Marie, Ont.

The DeForest Wireless Telegraph Co., press reports state, has established telegraphic connection between Montreal and Quebec, and is transacting a commercial business.

The str. Colonia, built to lay the new cable from Great Britain to Canso, N.S., for the Commercial Cable Co., went ashore near Canso, and is reported to be badly injured. She has been floated and will be at once repaired.

The United States Government is arranging to establish a number of wireless telegraph stations on the lower Yukon, between Nome and Gibbon, Alaska. The str. Susau, plying on this section of the river, has been fitted with the wireless apparatus.

The International Telegraph Construction Co. of London, Eng., is investigating the possibilities of establishing wireless telegraphic communication between Australia and New Zealand. It is claimed that messages can be sent between these points at a penny a word by the wireless system, as against 4½d. a word by the cable.

The act passed by the Dominion Parliament at its recent session, for the regulation of wireless telegraphy in Canada, provides that no person shall establish any wireless telegraph on board any Canadian vessel except under a license granted by the Minister of Marine, under such regulations as may be prescribed. The penalty for breach of this act is a fine of not exceeding \$500, or imprisonment for a term not exceeding twelve months, and the forfeiture of the apparatus; proceedings can only be taken by the Minister. The Minister may grant licenses for the installation of apparatus on board vessels for experimental purposes.

A Newfoundland press correspondent, writing about the colony, points out that the new policy of the Government in respect of the telegraph service has been largely determined as the result of the arbitration proceedings

with the Reid Newfoundland Co. The evidence given before the arbitrators, who awarded \$1,500,000 to the company, showed that the company anticipated making large profits from laying a cable across the strait; and also that the business of the Anglo-American Cable Co. in the colony had nearly doubled during the last six or seven years. The first step taken by the Newfoundland Government was to reduce the inland telegraph rate from 50c. to 20c. for ten words, over its lines, which was followed by a similar reduction on the Anglo-American Cable Co.'s lines. The second step taken was to arrange for the laying of a cable from Basque, Nfld., to Canso, N.S. The new cable is expected to be in operation by Sept., 1906, and will be operated by the Commercial Cable Co., which is laying an additional cable from England to Canso. The Government has also determined to extend the wireless telegraph system to the Labrador coast, and negotiations are in progress with the Marconi Wireless Telegraph Co., in respect to the installation of these.

In connection with the recent meeting of the Pacific Cable Congress in London, Eng., the following information, extracted from a return published as a House of Commons paper, will be of interest:—The report of the Cable Board shows that the number of messages and words transmitted during the year 1904-5 were approximately 177,968 and 2,056,953 respectively, of which 106,782 messages and 1,183,929 words were inter-colonial. The audited traffic figures for 1903-4 amounted to 176,824 messages and 2,097,897 words, of which 108,211 messages and 1,232,928 words were inter-colonial. The actual expenditure of the board on the service of the cable during the year ended Mar. 31, 1905, amounted to £50,751 11s. 2d., against £54,824 19s. 8d. in the previous year. The total receipts amounted to £87,446 10s. 8d. (including a special item of £5,118 15s. on account of repair services rendered by the Iris) against £80,118 13s. 3d. last year. The surplus on actual working was, therefore, £36,694 19s. 6d. The board, however, set aside £35,000 for the renewal fund, and they had also to provide a sum of £77,544 18s. for interest and sinking fund. This sinking fund will extinguish in 50 years the entire capital expenditure. Adding these payments to the expenditure, the deficiency on the year's operations amounts to £75,849 18s. 6d., against £87,751 4s. 5d. in the previous year. This deficiency has to be made good by the contributing Governments. Although, in the year 1904-5, the receipts were swelled by the earnings of the Iris, an item which cannot be expected to recur, it is satisfactory to note that the deficiency to be met by the contributing Governments in the second year of the cable's working is less than the annuity due on account of capital. The conference has resulted in the preparation of a report recommending plans for the placing of the cable on a sounder commercial basis. No recommendation has been made to stop operating the cable in order to stop current loss, and the conference agreed that the cable was worth a large Imperial subsidy, taking into consideration the big reduction of cable rates to Australia which the competition has brought about.

General Telephone Matters.

The Nanaimo, B.C., City Council has passed a resolution favoring government ownership of telephones. The city is served by a private company, and there are 175 subscribers.

The taxpayers of Dauphin, Man., have voted in favor of a municipally owned telephone system. The Bell Telephone Co. is at present installing a telephone system in the town.

The Bell Telephone Co.'s new building at Kingston, Ont., has been completed, and the

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Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	"	1,000,000 "
Erie R. R. Transfer & Clipping House, Chicago, Ill.	"	100 cars in 10 hrs.
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	"	1,500,000 "
Burlington Elevator Co., Peoria, Ill.	"	500,000 "
Canada Atlantic Railway Elevator, Coteau Landing, Que.	"	500,000 "
Northern Grain Co., Manitowoc, Wis.	"	1,350,000 "
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fitting up is now in progress. It is expected that the exchange will be formally opened in Oct.

The Attorney-General of Manitoba recently stated that it was the intention of the Government at the next session of the Legislature to introduce a bill providing for the establishment of a government owned and operated system of telephones, commencing with a trunk line and finally developing into branches throughout the province.

Early in the year the Amherstburg, Ont., town council granted a franchise to the Ontario Independent Telephone Co. In June only three instruments had been installed, and later on notice was given by the council that the franchise would be repealed unless its terms were promptly carried out. Nothing has since been done, and it is understood that the necessary steps will be taken to repeal the franchise.

The Bethesda and Stouffville Telephone Co. has been incorporated under the Ontario Companies' Act, with a capital of \$40,000 and offices at Stouffville, Ont., to take over the business of the Bethesda and Stouffville Telephone Association, and to carry on a general telephone business in the townships of Markham, Whitechurch, King, Pickering and Uxbridge. The provisional directors are: J. H. Ratcliffe, F. A. Dales, D. W. Heise, of Stouffville, Ont.; A. D. Bruce, G. Forester and G. A. Brodie.

The Telephone Co. of Prince Edward Island is making a number of improvements in its system. The exchange lines at Montague, Georgetown, Souris and Murray River are being rebuilt, a new switch board is being put in at Montague, the exchange lines at Summerside are being extended and in Charlottetown the common return system is being superseded by metallic circuit and a storage battery plant is being installed. A line is to be built from Wood Island to Little Sands, about eight miles, which will serve as a connecting link, and will give a third trunk line to Murray Harbor district.

The formal judgment of Justice Morrison in the case of the City of Vancouver against the British Columbia Telephone Co., sets forth that the city engineer in appending his signature to the plans of the company gave the consent contemplated by the Legislature, and that the city had not sustained any damages by reason of the company having proceeded with the work. The differences between the city and the company have been adjusted, the latter agreeing to set apart a special conduit in its underground system for the use of the city, with a special wire for fire alarm and patrol purposes, the company laying the conduit, and the city paying for the piping and wiring. It was also decided that each party should pay its own costs in the recent litigation.

The Eastern Telephone Co. held its annual meeting at Sydney, N.S., Aug. 7, when directors were elected and other business transacted. The annual report and statement of accounts has not been published. We are informed that the company expended a large amount of money in preparing overhead and underground cables, extensions of lines, etc., looking to future business, which has not yet materialized, and that the statement is not a satisfactory one. The business however is improving and it is hoped that the payment of dividends will be resumed next year. Following are the directors for the current year: B. W. Chipman, C. F. Fraser, F. B. McCurdy, R. L. Borden, J. Y. Payzant and J. Mackintosh, of Halifax; Dr. Mackeen and H. Donkin, of Glace Bay; B. Archibald, North Sydney; D. Finlayson, Arichat; James Macdonald, West Bay, and Judge Dodd, W. Crowe, J. E. Burchell and A. C. Ross, of Sydney.

Nova Scotia's Telephone Systems.

The evidence given before the House of Commons Select Committee to inquire into the various telephone systems in operation in Canada, by J. H. Winfield, Manager of the Nova Scotia Telephone Co., Halifax, N.S., contained much information of interest not only in regard to his own company, but also in reference to the whole telephone system of the province. The facts which follow are taken from the report of the Select Committee, and are arranged in narrative form, as being more convenient than as published question and answer.

The first telephone business was started in the Maritime Provinces by the Bell Telephone Co. about 1887, and subsequently an opposition company was started locally. After a short fight the Bell Telephone Co. sold out to what is now the Nova Scotia Telephone Co. This local company operated also in New Brunswick as well as in Nova Scotia. A local opposition was started in New Brunswick, and the Nova Scotia Telephone Co. sold out its interests in that province to it, reserving Nova Scotia as its field of operations. Since that time the company had gone on developing and covering the country with a network of telephone lines. At the present time there was in the province one telephone to every 74 inhabitants; two years ago there was one telephone in operation to every 85 inhabitants. The Nova Scotia Telephone Co. operated on the mainland, the Eastern Telephone Co. operated in Cape Breton Island, and there were in addition a number of local companies operating in restricted areas. A list of the several companies, showing the number of instruments operated by each, was put in evidence by Mr. Winfield, as follows:

Nova Scotia Telephone Co.	3,511
Eastern Telephone Co.	923
Valley Telephone Co.	700
Cumberland Telephone Co.	250
Yarmouth Amalgamated Telephone Co.	235
Queens' County Telephone Co.	180
Parrsboro' Shore Telephone Co.	120
Antigonish & Sherbrooke Telephone Co.	60
Central Telephone Co.	25
Barrington Telephone Co.	20
Cheverie Telephone Co.	15
Fox Harbor Telephone Co.	15
Maitland Telephone Co.	15
Westport and Digby Telephone Co.	15
Wallace Bay Telephone Co.	13
Conn's Mills Telephone Co.	12
Yarmouth Telephone Co.	12
Elmsdale, Gore and Rawdon Telephone Co.	10
Maitland and Noel Telephone Co.	10
Wentworth Telephone Co.	10
Economy and Five Islands Telephone Co.	8
Hammond's Plains Telephone Co.	8
Blandford Telephone Co.	6
Bass River Telephone Co.	5
New Ross Telephone Co.	3
Total	6,181

The Nova Scotia Telephone Co. has a line from Halifax to Truro, New Glasgow, Pictou and to the Strait of Canso, where connection is made with the lines of the Eastern Telephone Co.; another line goes through to Amherst, where connection is made with the New Brunswick Telephone Co.'s lines. It also has a line connecting Amherst and Pictou, another from Halifax to Windsor, and still another from Halifax to Bridgewater. Near Bridgewater connection is made with the Queen's County Telephone Co., which operates throughout that county, serving Liverpool, Shelburne and some smaller places. Other independent companies connected Windsor and Digby, Windsor and Truro, Elmsdale and West Gore, Stewiacke and Ship's Harbor, Brookfield and Upper Stewiacke. The various points connected by all the companies were not given, but Mr. Winfield stated that several of these were connected one with another, and most were connected with the Nova Scotia Telephone Co.'s lines. The Eastern Telephone Co. had its headquarters in Sydney, and operated

long distance lines, connecting with the Nova Scotia Telephone Co.'s line at the Strait of Canso. These local lines were promoted by the Nova Scotia Telephone Co., which supplied most of the outfits, as it was essential that there should be something like uniformity to ensure the long distance service. The local lines were kept in repair by the owners, who did most of the work of getting out the poles and stringing the wire. They were put up and maintained therefore much cheaper than they could be by a large company, and the owners would be satisfied with a service on their own line which they would not tolerate as subscribers to a company line. An endeavor was made by the Nova Scotia Telephone Co. to establish rural lines in its own territory and it put up ten miles of line between Pictou and Durham. A canvass was made for subscribers at \$20 a year, and only three subscribers were obtained; the rate was reduced to \$15 a year but no additional subscribers could be induced to take the service. After the line had been in operation for three years an investigation was made and it was found that the service was being given to 60 or 70 people for \$60 a year, the farmers at different points clubbing together to get the benefit of the service. The farmers, said Mr. Winfield, wanted the service, but were not prepared to pay for it. In granting connection to the rural companies the Nova Scotia Telephone Co. made a formal agreement that each should accept business from the other; that they would not overlap each other's territory, that the rural companies shall not extend their lines without permission, and the Nova Scotia Telephone undertook to protect the local companies from competition in their own territory. The rate for the connection varied with circumstances of each case, but the charge for the long distance service was the ordinary rate.

The Nova Scotia Telephone Co. has exchanges at Halifax, with 1,950 instruments; Amherst, Antigonish, Bridgewater, Lunenburg, Mahone Bay, New Glasgow, Oxford, Pictou, Pugwash, Shubenacadie, Truro, Windsor, Wallace, Springhill, and a few smaller places. The company also has about 200 toll stations. The Halifax lines were metallic circuits and central energy switchboard, the rates being \$45 for business instruments and \$30 for those in private houses; in Amherst, where there are 212 telephones, the rates are \$25 for business telephones and \$20 for house telephones; at Bridgewater, where there are 101 instruments, the rates are \$20 for business and \$15 for house telephones; at all places where there are fewer than 30 instruments the rate is \$15 a year all round. Telephone rates are subject to the approval of the Lieutenant Governor-in-Council, under the terms of a Nova Scotia Act of 1903. The proportion of toll and long distance business was as 90 is to 35. The financial year of the Nova Scotia Telephone Co. ends Jan. 31, and the statement for 1904-05 had not been audited at the time Mr. Winfield gave evidence before the committee. The company has paid dividends at the rate of 6% per annum, and maintained a contingent and depreciation account, an accident reserve and an insurance reserve, the two latter amounted to \$10,000 each, and the contingent and depreciation account at Jan. 31, 1904, was \$73,448.95. The capital stock amounted to \$417,650, of which the Bell Telephone Co. held \$66,150 or about one-fourteenth. The assets of the company included, at Jan. 31, 1904, \$122,530 of stock in other telephone companies.

An independent telephone line is to be constructed from Bancroft to Maynooth, Ont., in connection with the line already existing between Bancroft and Eldorado.

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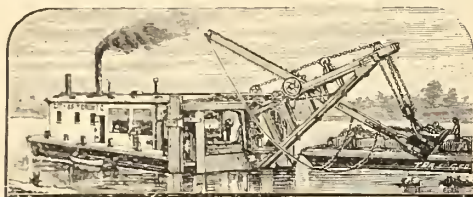
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The Canadian Pacific Railway Company.

Dividends for the half year ended 30th June, 1905, have
been declared as follows:

On the Preference Stock two per cent.

On the Common Stock three per cent.

Warrants for the Common Stock dividend will be mailed
on or about October 2nd to Shareholders of record at the
closing of the books in Montreal, New York and London
respectively.

The Preference Stock dividend will be paid on Monday,
2nd October, to Shareholders of record at the closing
of the books at the Company's London office, No. 62
Charing Cross, London, S.W.

The Common Stock Transfer Books will close in Mon-
treau, New York and London, at three p.m., on Friday,
September 1st. The Preference Stock Books will also
close at three p.m. on Friday, September 1st.

All books will be re-opened on Thursday, October 5th.

By order of the Board,

CHARLES DRINKWATER,

Montreal, 14th August, 1905.

Secretary.

The Canadian Pacific Railway Company.

NOTICE TO SHAREHOLDERS.

The Twenty-fourth Annual Meeting of the Share-
holders of this Company for the election of the Directors
to take the places of the retiring Directors, and the trans-
action of business generally, will be held on Wednesday,
the fourth day of October next, at the principal office of
the Company at Montreal, at twelve o'clock noon.

The Common Stock Transfer Books will close in
Montreal, New York and London at 3 p.m. on Fri-
day, September 1st. The Preference Stock Books will
also close at 3 p.m. on Friday, September 1st.

All books will be re-opened on Thursday, October
5th.

By order of the Board,

CHAS. DRINKWATER,

Secretary.

Montreal, August 25th, 1905.

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(Continued from third page of cover.)

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Canadian Fairbanks Co. Montreal.
The Canadian Rubber Co. of Montreal.
Williams & Wilson. Montreal.
- Engines, Automatic**
Robb Engineering Co. Amherst, N.S.
- Engines, Corliss**
Robb Engineering Co. Amherst, N.S.
- Engines, Gasoline**
Goold, Shapley & Muir Co. Brantford, Ont.
Ontario Wind Engine and Pump Co. Toronto.
- Engines, Hoisting**
M. Beatty & Sons. Welland, Ont.
- Engines, Stationary and Marine**
Canada Foundry Co. Toronto.
H. W. Petrie. Toronto.
Polson Iron Works. Toronto.
Robb Engineering Co. Amherst, N.S.
- Engines, Steam**
Erie Heating Co. Chicago, Ill.
Williams & Wilson. Montreal.
- Engraving**
Rolph & Clark (Ltd.) Toronto.
Toronto Engraving Co. Toronto.
- Engraving (Copper and Steelplate)**
Rolph & Clark (Ltd.) Toronto.
- Express Office Signs**
Acton Burrows Co. Toronto.
- Feedwater Heaters**
Canadian Fairbanks Co. Montreal.
H. W. Petrie. Toronto.
Robb Engineering Co. Amherst, N.S.
Williams & Wilson. Montreal.
- Fence Staples**
New Brunswick Wire Fence Co. Moncton, N.B.
- Fencing**
Canada Foundry Co. Toronto.
Canadian Steel and Wire Co. Hamilton, Ont.
New Brunswick Wire Fence Co. Moncton, N.B.
McGregor, Banwell Fence Co. Walkerville, Ont.
Owen Sound Wire Fence Co. Owen Sound, Ont.
Page Wire Fence Co. Walkerville, Ont.
- Fire Brick**
W. H. C. Mussen & Co. Montreal.
- Fire Escapes**
The G. B. Meadows Wire, etc., Co. Toronto.
- Fire Insurance**
Dale & Co. Montreal.
- Flags**
The Hudson's Bay Co.
- Flour**
The Hudson's Bay Co.
- Forgings**
Crossen Car Mfg. Co. Cobourg, Ont.
General Railway Signal Co. Buffalo, N.Y.
Standard Steel Works. Philadelphia, Pa.
- Gasoline Engines**
Canadian Fairbanks Co. Montreal.
- Gas Pipe (Cast Iron)**
Gartshore-Thompson Pipe & F'dry Co. Hamilton.
- Gates**
Canada Foundry Co. Toronto.
McGregor, Banwell Fence Co. Walkerville, Ont.
New Brunswick Wire Fence Co. Moncton, N.B.
Owen Sound Wire Fence Co. Owen Sound, Ont.
Page Wire Fence Co. Walkerville, Ont.
- Gears (Heavy)**
W. Kennedy & Sons (Ltd.) Owen Sound, Ont.
- Grain Elevators**
John S. Metcalfe Co. Chicago, Ill.
- Groceries**
The Hudson's Bay Company.
- Handcars**
Crossen Car Mfg. Co. Cobourg, Ont.
W. H. C. Mussen & Co. Montreal.
Toronto Pressed Steel Co. Toronto.
- Hardware**
The Hudson's Bay Company.
- Headlights**
N. L. Piper Railway Supply Co. Toronto.
- Headlinings**
Crossen Car Mfg. Co. Cobourg, Ont.
- Heaters**
Erie Heating Co. Chicago, Ill.
- Heating for Power Plants**
Erie Heating Co. Chicago, Ill.
- Hose, Air Brake and Steam**
The Canadian Rubber Co. of Montreal.
- Hose, Fire**
The Canadian Rubber Co. of Montreal.
- Hose, Suction**
The Canadian Rubber Co. of Montreal.
- Illustrations**
Acton Burrows Co. Toronto.
- Hydrants**
Kerr Engine Co. Walkerville, Ont.
- Inspections**
R. W. Hunt & Co. Montreal.
H. Jarvis & Co. Chicago, Ill.
- Instruments, Surveying and Engineering**
Eugene Dietzgen Co. New York.
James Foster. Toronto.
- Insurance (Fire and Marine)**
Dale & Co. Montreal.
- Interlocking and Signalling**
General Railway Signal Co. Buffalo, N.Y.
- Interlocking Signals**
Montreal Steel Works. Montreal.
- Iron Fencing**
The G. B. Meadows Wire, etc., Co. Toronto.
- Iron and Steel Castings**
American Brake Shoe & F'dry Co. Mahwah, N.J.
- Iron, Pig**
John McDougall & Co. Montreal.
- Iron Signs**
Acton Burrows Co. Toronto.
- Japans**
McCaskill, Dougall & Co. Montreal.
- Journal Bearings**
Canada Foundry Co. Toronto.
Crossen Car Mfg. Co. Cobourg, Ont.
Kerr Engine Co. Walkerville, Ont.
Jas. W. Pyke & Co. Montreal.
St. Thomas Brass Co. St. Thomas, Ont.
- Journal Boxes**
N. J. Holden & Co. Montreal.
- Lager Beer, &c.**
E. L. Drewry. Winnipeg.
- Lamps, Incandescent**
Canadian Westinghouse Co. Hamilton, Ont.
- Lamps and Lanterns**
The Hudson's Bay Company.
N. L. Piper Railway Supply Co. Toronto.
- Lathes**
The John Bertram Sons Co. Dundas, Ont.
H. W. Petrie. Toronto.
Williams & Wilson. Montreal.

(Continued on page 447.)

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PURCHASING AGENTS' GUIDE.

(Continued from page 445.)

- Launches**
Polson Iron Works.....Toronto.
- Lights, Contractors' and Wrecking**
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
- Lithographing**
Rolph & Clark (Ltd.).....Toronto.
- Locomotive Boiler Washer, Automatic**
Erie Heating Co.....Chicago, Ill.
- Locomotive Driver Brake Shoe**
American Brake Shoe & F'dry Co...Mahwah, N.J.
- Locomotive Lagging and Covering**
Canadian Fairbanks Co.....Montreal.
- Locomotives (Compressed Air)**
Baldwin Locomotive Works.....Philadelphia, Pa.
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.
- Locomotives (Electric)**
Baldwin Locomotive Works...Philadelphia, Pa.
Canada Foundry Co.....Toronto.
Locomotive and Machine Co. of Montreal.
- Locomotives (Logging)**
Canadian Locomotive Co.....Kingston, Ont.
Lima Locomotive and Machine Co...Lima, Ohio.
- Locomotives (Rack)**
Baldwin Locomotive Works...Philadelphia, Pa.
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.
- Locomotives (Steam)**
Baldwin Locomotive Works...Philadelphia, Pa.
Canada Foundry Co.....Toronto.
Canadian Locomotive Co.....Kingston, Ont.
F. M. Hicks & Co.....Chicago, Ill.
F. H. Hopkins & Co.....Montreal.
The W. H. Kelson Co.....Montreal.
Lima Locomotive and Machine Co...Lima, Ohio.
Locomotive and Machine Co. of Montreal.
- Locomotive Stack Netting**
The G. B. Meadows Wire, etc., Co.....Toronto.
- Machine Tools**
W. Abbott.....Montreal.
Canadian Fairbanks Co.....Montreal.
H. W. Petrie.....Toronto.
Williams & Wilson.....Montreal.
- Machine Screws, Set Cap and Planer**
John Morrow Machine Screw Co.....Ingersoll.
- Machinery, Marine**
Sheriffs Mfg. Co.....Milwaukee, Wis.
- Machinery Repairs, Marine**
Sheriffs Mfg. Co.....Milwaukee, Wis.
- Manganese Steel Castings**
Montreal Steel Works.....Montreal.
- Manhole Frames and Covers**
American Brake Shoe & F'dry Co...Mahwah, N.J.
- Maps**
Rolph & Clark (Ltd.).....Toronto.
- Marine Insurance**
Dale & Co.....Montreal.
- Mats and Matting**
The Canadian Rubber Co. of Montreal.
- Milepost Numbers**
Acton Burrows Co.....Toronto.
- Milling Cutters**
W. Abbott.....Montreal.
Williams & Wilson.....Montreal.
- Milling Machines**
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.
- Mills, Boring and Turning**
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.
- Mill Tools and Supplies**
J. A. Dawson & Co.....Montreal.
- Nickel**
The Orford Copper Co.....New York.
- Nickel for Nickel Steel**
The Orford Copper Co.....New York.
- Numbers**
Acton Burrows Co.....Toronto.
- Nuts, Cold Pressed**
John Morrow Machine Screw Co.....Ingersoll.
- Nuts, Square and Hexagon**
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.
- Oakum**
The Hudson's Bay Company.....
- Office Desks**
Canadian Office & School Furniture Co., Preston, Ont.
- Office Fittings**
Canadian Office & School Furniture Co., Preston, Ont.
- Office Railings**
The G. B. Meadows Wire, etc., Co.....Toronto.
- Office Signs**
Acton Burrows Co.....Toronto.
- Oils**
Galena Signal Oil Co., Franklin, Pa., and Toronto.
- Packing**
The N. L. Piper Railway Supply Co.....Toronto.
Williams & Wilson.....Montreal.
- Packing, High Pressure Sheet**
The Canadian Rubber Co. of Montreal.
- Packing, Piston**
The Canadian Rubber Co. of Montreal.
- Paints, Acid Proof and Anti-rust**
American Asphaltum & Rubber Co...Chicago, Ill.
- Paints, Asphaltum**
American Asphaltum & Rubber Co...Chicago, Ill.
- Paints, Bridge**
American Asphaltum & Rubber Co...Chicago, Ill.
- Paints, Locomotive Front end**
American Asphaltum & Rubber Co...Chicago, Ill.
- Paints, Mineral Rubber**
American Asphaltum & Rubber Co...Chicago, Ill.
- Paints, Structural Iron**
American Asphaltum & Rubber Co...Chicago, Ill.
- Pinch Bars**
The N. L. Piper Railway Supply Co.....Toronto.
- Pipe**
Erie Heating Co.....Chicago, Ill.
- Pipe and Pipe Coverings**
W. C. Baker.....New York.
- Pipe Covering**
Canadian Fairbanks Co.....Montreal.
Mica Boiler Covering Co.....Montreal.
- Planers**
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.
- Ploughs, Contractors'**
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.
- Pneumatic Tools**
N. J. Holden & Co.....Montreal.
- Porter**
E. L. Drewry.....Winnipeg.
- Portable Boilers**
Babcock & Wilcox (Ltd.).....Montreal.
Canada Foundry Co.....Toronto.
Robb Engineering Co.....Amherst, N.S.
- Portland Cement**
Thorn Cement Co.....Buffalo, N.Y.
- Power Plants, Contractors'**
Erie Heating Co.....Chicago, Ill.
- Printing**
The Hunter, Rose Co.....Toronto.
The Mail Job Printing Company.....Toronto.
- Propeller Wheels**
W. Kennedy & Sons (Ltd.)...Owen Sound, Ont.
Sheriffs Manufacturing Co.....Milwaukee, Wis.
- Pumps**
Canadian Fairbanks Co.....Montreal.
Canada Foundry Co.....Toronto.
Erie Heating Co.....Chicago, Ill.
Goold, Shapley & Muir Co.....Brantford, Ont.
- Pumps (Centrifugal)**
M. Beatty & Sons.....Welland, Ont.
- Punches**
F. J. Myers Mfg. Co.....Hamilton, Ohio.
- Punching and Shearing Machines**
The John Bertram Sons Co.....Dundas, Ont.
- Rail Benders, Roller**
Montreal Steel Works.....Montreal.
- Rails (new)**
Drummond, McCall & Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.
- Rails (for relaying)**
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.
T. A. Morrison & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.
- Railway Equipment**
F. M. Hicks & Co.....Chicago, Ill.
- Railway Interlocking**
General Railway Signal Co.....Buffalo, N.Y.
- Rail Joints**
N. J. Holden & Co.....Montreal.
- Railway Pile Drivers**
W. H. C. Mussen & Co.....Montreal.
- Railway Signalling**
General Railway Signal Co.....Buffalo, N.Y.
- Railway Supplies**
J. A. Dawson & Co.....Montreal.
Canadian Fairbanks Co.....Montreal.
The W. H. Kelson Co.....Montreal.
The N. L. Piper Railway Supply Co.....Toronto.
- Reamers**
W. Abbott.....Montreal.
- Refrigerators**
Geo. R. Prowse.....Montreal.
- Rivets, Bolter, Bridge and Structural**
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.
- Roller Wheels**
Standard Steel Works.....Philadelphia, Pa.
- Rolls, Plate Bending**
The John Bertram Sons Co.....Dundas, Ont.
- Roof Trusses**
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
- Roofing Composition**
American Asphaltum & Rubber Co...Chicago, Ill.
- Roofing Pitch**
American Asphaltum & Rubber Co...Chicago, Ill.
- Roofing, Ready**
American Asphaltum & Rubber Co...Chicago, Ill.
- Roofs, Car**
American Asphaltum & Rubber Co...Chicago, Ill.
- Rope**
The Hudson's Bay Co.....
- Rotary Snow Ploughs**
Crossen Car Mfg. Co.....Cobourg, Ont.
- Rubber Tiling, Interlocking**
The Canadian Rubber Co. of Montreal.
- Saw Steel**
Montreal Steel Works.....Montreal.
- Scrapers (Wheel and Drag)**
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.
- Screws, Coach and Lag**
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.
- Semaphore Arms**
Acton Burrows Co.....Toronto.
- Semaphores**
The N. L. Piper Railway Supply Co.....Toronto.
- Sewer Pipe (Cast Iron)**
Gartshore-Thompson Pipe & F'dry Co...Hamilton.
- Shaking Grates**
Babcock & Wilcox (Ltd.).....Montreal.
- Shaping Machines**
The John Bertram Sons Co.....Dundas, Ont.
- Ship Lamps**
The N. L. Piper Railway Supply Co.....Toronto.
- Ships**
Polson Iron Works.....Toronto.
- Shovels**
F. H. Hopkins & Co.....Montreal.
The Hudson's Bay Co.....
- Side Bearings**
Simplex Railway Appliance Co.....Montreal.
- Signal House Numbers**
Acton Burrows Co.....Toronto.
- Signals**
General Railway Signal Co.....Buffalo, N.Y.
N. L. Piper Railway Supply Co.....Toronto.
- Signs**
Acton Burrows Co.....Toronto.
- Slack Adjusters**
Chicago Railway Equipment Co.....Chicago, Ill.
- Slotting Machines**
The John Bertram Sons Co.....Dundas, Ont.
- Snow Ploughs**
Crossen Mfg. Co.....Cobourg, Ont.
Rhodes, Curry & Co.....Amherst, N.S.
- Specialties in Brass and Iron Wire**
The G. B. Meadows Wire, etc., Co.....Toronto.
- Speedicut High Speed Steel**
Montreal Steel Works.....Montreal.
- Spikes, Railway, Ship or Pressed**
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.
- Springs**
Montreal Steel Works.....Montreal.
Standard Steel Works.....Philadelphia, Pa.
- Station and Tower Heaters**
W. C. Baker.....New York.
- Stationery**
Rolph & Clark (Ltd.).....Toronto.
- Station Name Signs**
Acton Burrows Co.....Toronto.
- Steam Attachments for Car Heating**
W. C. Baker.....New York.
- Steam Couplers**
Safety Car Heating and Lighting Co...New York.
- Steam Hammers**
The John Bertram Sons Co.....Dundas, Ont.

Steam Shovels

M. Beatty & Sons.....Welland, Ont.
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Steamship Supplies

The W. H. Kelson Co.....Montreal.

Steamships

Polsou Iron Works.....Toronto.

Steamship Signs

Acton Burrows Co.....Toronto.

Steam Steering Engines for Tugs

Sheriffs Mfg. Co.....Milwaukee, Wis.

Steel

W. Abbott.....Montreal.
F. H. Hopkins & Co.....Montreal.
Wm. Jessop & Sons.....Sheffield, Eng.
Williams & Wilson.....Montreal.

Steel Buildings

Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.

Steel for Springs

James Hutton & Co.....Montreal.

Steel Plate

Jas. W. Pyke & Co.....Montreal.

Steel, Nickel for Nickel

The Orford Copper Co.....New York.

Steel Rolling Doors

W. H. C. Mussen & Co.....Montreal.

Steel Tyres

James Hutton & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.

Stokers, Mechanical

Babcock & Wilcox (Ltd.).....Montreal.

Structural Metal Work

Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
Locomotive and Machine Co. of Montreal.
Jas. W. Pyke & Co.....Montreal.

Superheaters

Babcock & Wilcox (Ltd.).....Montreal.

Switches

Montreal Steel Works.....Montreal.

Switch Lamps

The N. L. Piper Railway Supply Co.....Toronto.

Switch Ropes

The B. Greening Co.....Hamilton, Ont.

Switch Targets

Acton Burrows Co.....Toronto.

Tanks and Tank Fixtures

Canadian Fairbanks Co.....Montreal.
Canada Foundry Co.....Toronto.
Goold, Shapley & Muir Co.....Brantford, Ont.
Ontario Wind Engine and Pump Co.....Toronto.

Telegraph and Telephone Office Signs

Acton Burrows Co.....Toronto.

Tests

R. W. Hunt & Co.....Montreal.
H. Jarvis & Co.....Chicago, Ill.

Ticket Punches

F. J. Myers Mfg. Co.....Hamilton, Ohio.

Ticket Wickets

The G. B. Meadows Wire, etc., Co.....Toronto.

Tie Plates

Montreal Rolling Mills Co.....Montreal.

Time Table Racks

The G. B. Meadows Wire, etc., Co.....Toronto.

Tires

Standard Steel Works.....Philadelphia, Pa.

Tool Steel

W. Jessop & Sons.....Sheffield, Eng.
Montreal Steel Works.....Montreal.

Towers

Goold, Shapley & Muir Co.....Brantford, Ont.

Track Jacks

Canadian Fairbanks Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
Montreal Steel Works.....Montreal.
W. H. C. Mussen & Co.....Montreal.
A. O. Norton.....Coaticook, Que.

Track Tools

N. J. Holden & Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
Montreal Steel Works.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Tracklaying Lorries

Crossen Car Mfg. Co.....Cobourg, Ont.

Tramway Equipment

J. J. Gartshore.....Toronto.

Trucks (Electric Car)

Baldwin Locomotive Works.....Philadelphia, Pa.
Canada Foundry Co.....Toronto.
Montreal Steel Works.....Montreal.

Trucks (Railroad and Warehouse)

Canadian Fairbanks Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Turbine Waterwheels

W. Kennedy & Sons (Ltd.).....Owen Sound, Ont.

Turbobuckles

Montreal Steel Works.....Montreal.

Turntables

Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.

Underwriters

Dale & Co.....Montreal.

Valves, Brass Gate

Kerr Engine Co.....Walkerville, Ont.

Valves, Brass Globe

Kerr Engine Co.....Walkerville, Ont.

Valves, Iron and Brass

Canada Foundry Co.....Toronto.
Canadian Fairbanks Co.....Montreal.

Valves, Iron Gate

Kerr Engine Co.....Walkerville, Ont.

Valves, Rubber

The Canadian Rubber Co. of Montreal.

Varnishes

McCaskill, Dougall & Co.....Montreal.

Vessels

Polson Iron Works.....Toronto.

Washers

Montreal Rolling Mills Co.....Montreal.

Waste

N. L. Piper Railway Supply Co.....Toronto.

Water Filters

Geo. R. Prowse.....Montreal.

Water Pipe (Cast Iron)

Gartshore-Thompson Pipe & F'dry Co., Hamilton.

Water Softeners

Babcock & Wilcox (Ltd.).....Montreal.

Wheelbarrows

F. H. Hopkins & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Wheels, Car

John McDougall & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.
Rhodes, Curry & Co.....Amherst, N.S.
Standard Steel Works.....Philadelphia, Pa.

Wheels, Locomotive

John McDougall & Co.....Montreal.

Wheels, rolled, solid forged

Standard Steel Works.....Philadelphia, Pa.

Wheels, steel tired

Standard Steel Works.....Philadelphia, Pa.

Windmills

Canadian Fairbanks Co.....Montreal.
Ontario Wind Engine and Pump Co.....Toronto.

Wire and Wire Rope

Dominion Wire Rope Co.....Montreal.
The B. Greening Co.....Hamilton, Ont.
W. H. C. Mussen & Co.....Montreal.
The Wire and Cable Co.....Montreal.

Wire Cloth

The B. Greening Co.....Hamilton, Ont.
F. J. Myers Mfg. Co.....Hamilton, Ohio.

Wire, Copper

E. F. Phillips Electrical Works, Ltd.....Montreal.
The Wire and Cable Co.....Montreal.

Wire, Electric

Canadian General Electric Co.....Toronto.
E. F. Phillips Electrical Works, Ltd.....Montreal.
The Wire and Cable Co.....Montreal.

Wire, Insulated Copper

Canadian General Electric Co.....Toronto.
E. F. Phillips Electrical Works, Ltd.....Montreal.
The Wire and Cable Co.....Montreal.

Wire Lockers (Employees)

The G. B. Meadows Wire, etc., Co.....Toronto.

Wire, Telegraph and Telephone

E. F. Phillips Electrical Works, Ltd.....Montreal.
The Wire and Cable Co.....Montreal.

Wire, Transmission and Trolley

The Wire and Cable Co.....Montreal.

Woodworking Machinery

H. W. Petrie.....Toronto.

Wrecking Cranes

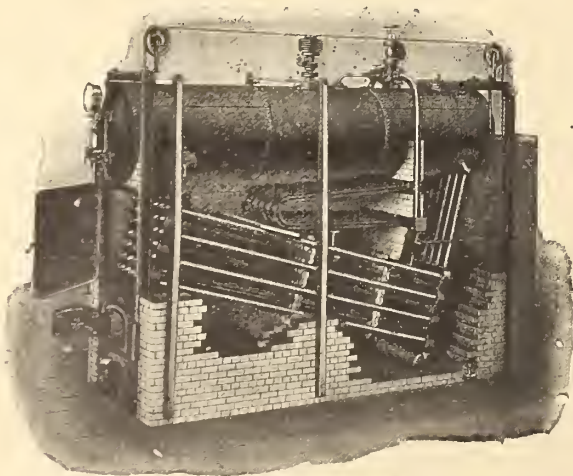
W. H. C. Mussen & Co.....Toronto.

Wrought Steel Piping

Canada Foundry Co.....Toronto.

Yachts

Polson Iron Works.....Toronto.



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Canadian Ry. Accident Ins. Co. Ottawa, Ont.

Aerated Waters

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Air Brakes and Fittings

Canada Foundry Co. Toronto.
Canadian Westinghouse Co. Hamilton, Ont.

Air Compressors

N. J. Holden & Co. Montreal.

Ales

E. L. Drewry Winnipeg.

Angle Bars

Montreal Rolling Mills Co. Montreal.

Asphalt, Pure

American Asphaltum & Rubber Co. Chicago

Axe Steel

Montreal Steel Works. Montreal.

Axles

James Hutton & Co. Montreal.
Jas. W. Pyke & Co. Montreal.
Rhodes, Curry & Co. Amherst, N.S.

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(Continued on page 445.)

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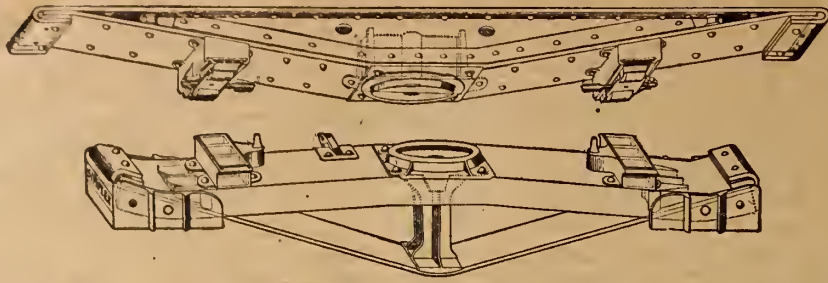
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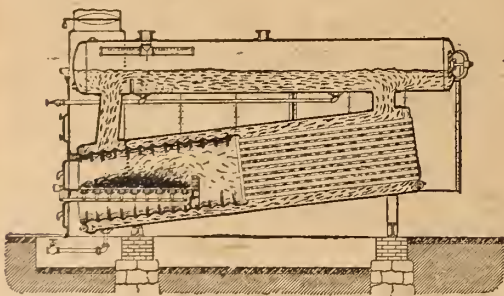
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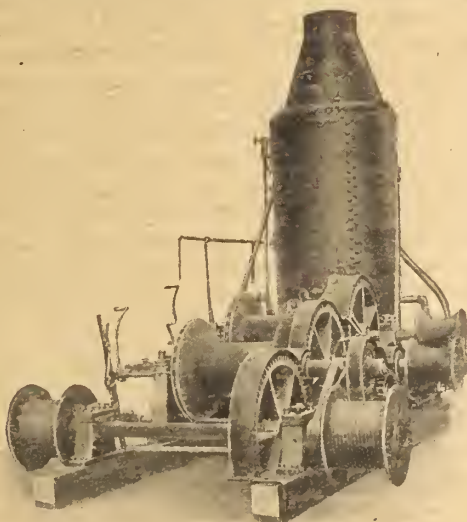
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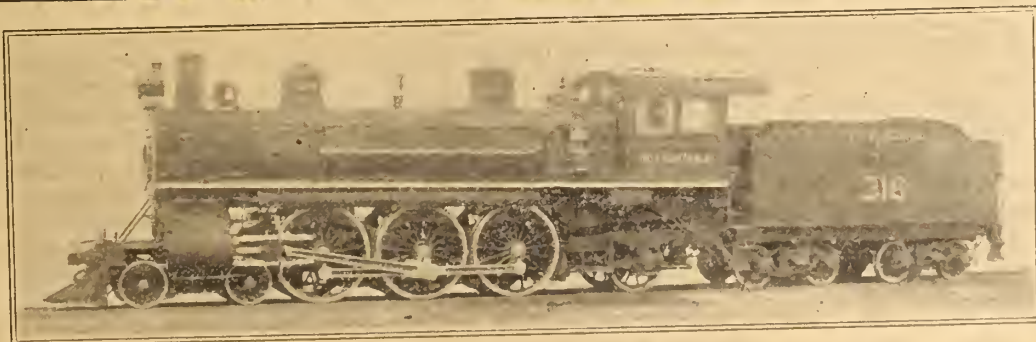
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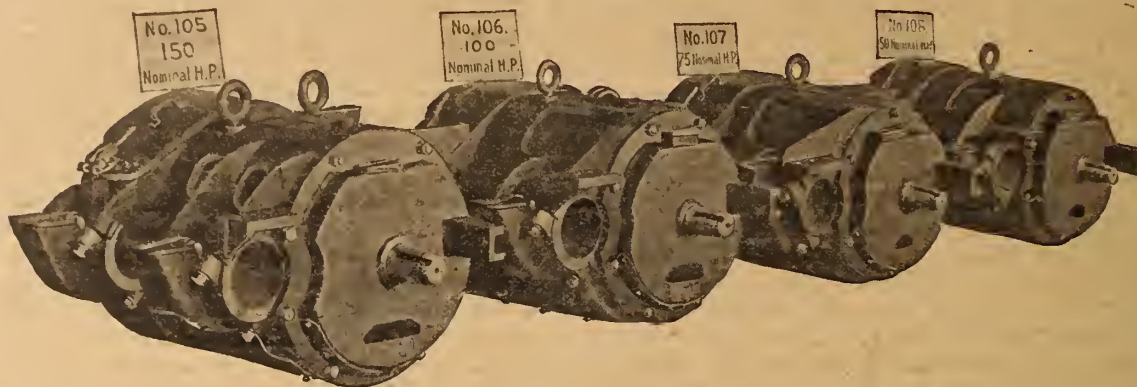
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Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:—

Authorizing the Department of Railways and Canals to put into use an interlocking, derailling and signal system on the Nassau, Ont., drawbridge over the Trent Canal. (Aug. 10).

Approving plans for the reconstruction of a bridge on the Tring-Megantic branch, Quebec Central Ry. (Aug. 11).

Approving plans for the construction of bridges at Lorch's Creek, between mileage 16 and mileage 17, Guelph and Goderich Ry. (Aug. 11).

Authorizing the C.P.R. to construct a branch line in Winnipeg, crossing Higgins Ave., and Henry St., to lot 7, block 15. (Aug. 11.)

Granting leave to the light commissioners of Berlin, Ont., to carry six electric light wires across the G.T.R. tracks at Waterloo St., Berlin, on conditions named. (Aug. 11).

Authorizing the Toronto, Hamilton and Buffalo Ry. to construct a spur line across the Beach road at Hamilton, Ont. (Aug. 11).

Sanctioning plans for a bridge over Hoose Creek, mileage 36.5 from Ottawa, for the Canada Atlantic Ry. (Aug. 11).

Granting permission to the Guelph, Ont. City Council to lay sewer pipes under the G.T.R., in Guelph, according to plans filed and conditions agreed upon. (Aug. 11).

Approving plans of a bridge across the North Saskatchewan River at Fort Saskatchewan, Alta., for the Canadian Northern Ry. (Aug. 11).

Sanctioning a deviation from the location previously approved for the Wetaskiwin, Alta., branch of the Calgary and Edmonton Ry., between mileage 96 and mileage 100. (Aug. 11).

Approving plans for the diversion of the C.P.R. from its constructed line near Palliser, B.C. (Aug. 11).

Approving plans for the location of a branch of the C.P.R., from the main line at Sudbury to Hutton, Ont., 30.1 miles. (Aug. 16).

Approving location between mileage 88 and mileage 97 of the C.P.R. Wolseley-Reston branch in Saskatchewan. (Aug. 16).

Sanctioning the crossing of highways at 20 points by the Guelph and Goderich Ry. (Aug. 16).

Approving of plans for concrete abutments of the proposed bridge over the Nottawasaga River, on the C.P.R. Toronto-Sudbury branch. (Aug. 17).

Authorizing the James Bay Ry. to construct an under crossing of the C.P.R. on lot 13, concession 2, from Toronto Bay; also to construct an under crossing of the C.P.R. at mileage 8.5 from Toronto. (Aug. 17).

Authorizing the C.P.R. to open for public traffic that portion of its McGregor-Varcoe branch between Brookdale and Varcoe, Man. (Aug. 21).

Authorizing the C.P.R. to open for public traffic the diversion recently completed at Palliser, B.C. (Aug. 21).

Granting permission to the G.T.R. to lay a watermain under the tracks of the Montreal Park and Island Ry. in Notre Dame de Grace parish, Que., on conditions specified. (Aug. 21).

Granting permission to the Toronto City Council to lay a sewer under the G.T.R. tracks at Roncesvalles Ave., Toronto. (Aug. 21).



THOMAS MARSHALL

Secretary-Treasurer Canadian Freight Association.

Sanctioning amended plans and book of reference for deviation of the projected line of the Alberta Ry. and Irrigation Co., plans of which was approved by the Board, Feb. 11, 1905. (Aug. 25).

Sanctioning a proposed revision of location of the Prince Albert branch Canadian Northern Ry., between mileage 438 and mileage 448. (Aug. 25).

Granting permission to the Peregrine Coal Co., Hamilton, Ont., to lay a sewer under the G.T.R. tracks on Ferguson Ave., Hamilton. (Aug. 25).

Granting permission to the Dominion

Natural Gas Co., to lay pipes under the G.T.R. tracks at a number of points where they cross the public highway near Hamilton, Ont. (Aug. 25).

Granting permission to the village of Creemore, Ont., to lay watermain under the G.T.R. tracks in the village. (Aug. 25).

Granting the Waterloo, Ont., town Council permission to lay a sewer and gas pipes under G.T.R. tracks at certain street crossings in the town according to plans filed and conditions agreed to. (Aug. 25.)

Sanctioning deviation from previously located line of the Vancouver, Victoria and Eastern Ry., from lot 641, township 67, sec. 3, for a distance of 17.07 miles. (Aug. 31).

Authorizing the Lake Erie and Detroit River Ry. to construct a branch from its present main line near Kettle Creek, to a junction with the Canada Southern Ry., in the Township of Yarmouth, Ont. (Aug. 31).

Authorizing the construction of an electric railway upon certain streets in Hamilton, Ont., for the Brantford and Hamilton Electric Ry., subject to the terms of by-law 484 of Hamilton city. (Sept. 1).

Sanctioning location plans of the Vancouver, Westminster and Yukon Ry., from station 1058.10 to station 1671.10. (Sept. 1.)

Sanctioning the location of the line of the Vancouver, Victoria and Eastern Ry. from the International boundary in Indian Reserve No. 7, to Keremeos, B.C., 18.7 miles. (Sept. 1.)

Approving plans for the construction of a railway on certain streets in Hamilton, Ont., mentioned in by-law No. 484 of the City Council, for the Hamilton, Galt and Guelph Ry. (Sept. 1).

Authorizing the Salmon River and Northern Ry. to cross the C.P.R. tracks about four miles east of Montebello, Que., on terms of agreement made between the companies. (Sept. 2.)

Varying the order of the Board dated May 11 by authorizing the deviation of the high-way on the Lake Shore Rd., in Hope township, Ont., so that it can be carried under the G.T.R. tracks at right angles about 300 ft. east of the present crossing. (Sept. 2).

Approving plans for the construction of bridges over the Whanapitae, French and Pickercil Rivers, on the C.P.R., Toronto-Sudbury line. (Sept. 2).

Authorizing the G.T.R. to employ watchmen at its crossings of Kent St., and Lindsay St., south, Lindsay, Ont. (Sept. 4).

Approving plans for the location of the Grand Trunk Pacific Ry. main line from mileage 50.841 to mileage 84.543, Portage la Prairie district, Man. (Sept. 4).

(Continued on page 453.)

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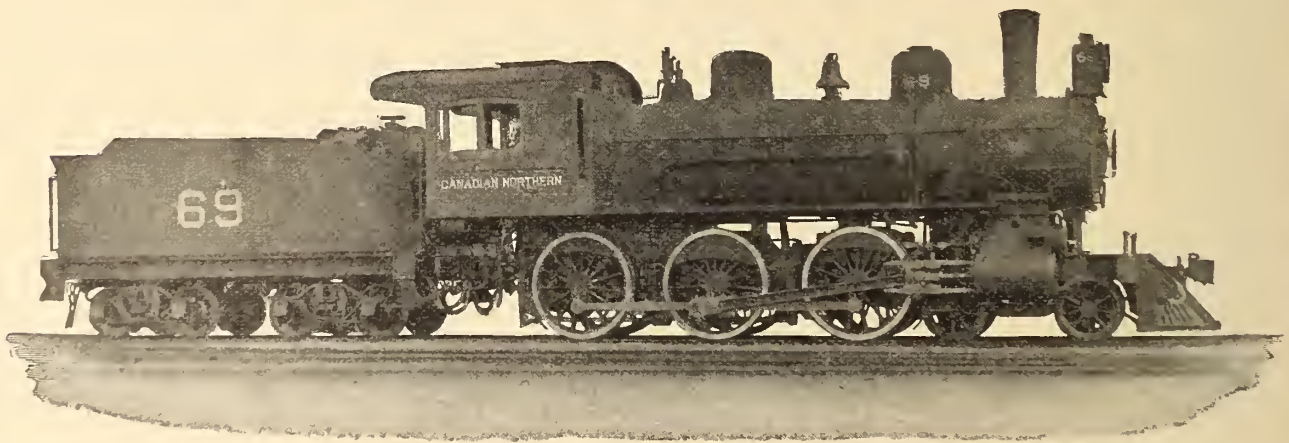
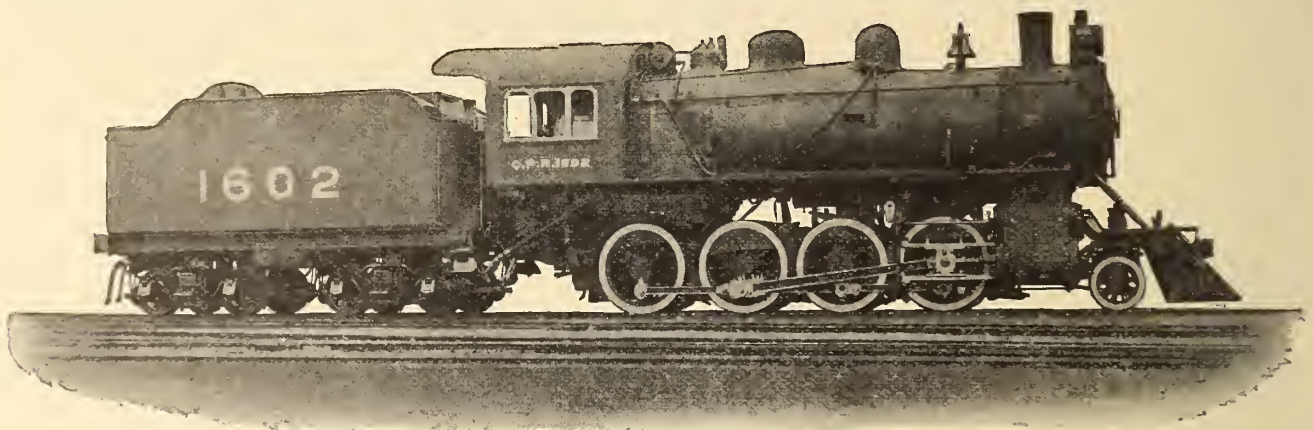
CONSULTING ENGINEER.

Railways, Bridges,
Buildings, Foundations. BERLIN, ONT.

The Locomotive and Machine Company of Montreal, Limited

IMPERIAL BANK BUILDING, VICTORIA SQUARE, MONTREAL, CANADA

Builders of Locomotives for all Classes of Service



Structural Steel

—FOR—

BRIDGES, BUILDINGS, ROOF TRUSSES, ETC.

NEW YORK OFFICE:

American Locomotive Company,
111 Broadway

LONDON OFFICE:

Alfred Davis, 26 Victoria Street,
Westminster, S.W.

Orders by the Railway Commissioners.

(Continued from page 449.)

Approving plans for the location of the Nicola, Kamloops and Similkameen Coal and Ry. Co. from mileage 45, Nicola Lake, to Tuck-ul-nu-it Lake in the Okanagan Valley. (Sept. 5).

Granting the James Bay Ry. permission to cross the right of way of the G.T.R. in the township of Thorah, Ont., on condition that if the G.T.R. shall require to lay tracks on the right of way, the J.B. Ry. shall raise the grade and put in an ordinary diamond crossing. (Sept. 5).

Granting permission to the Montreal Park and Island Ry. to carry electric wires over the G.T.R. tracks at Cote St. Paul Rd., Montreal. (Sept. 6).

Sanctioning location plans of the Canadian Northern Ry. through townships 8 to 10, range 26, west, the J.B. Ry. shall raise the grade 36.34, reckoned from Hartney, Man. (Sept. 12).

Authorizing the Brantford Electric and Operating Co. to carry two electric wires over the G.T.R. tracks in Brantford, Ont. (Sept. 12.)

Authorizing R. T. Walsh & Co. to carry four electric light wires over the G.T.R. at Ormstown, Que. (Sept. 12.)

C.P.R. ANNUAL REPORT.

Following is the 24th annual report, addressed to the shareholders, over the signature of the President, Sir Thos. G. Shaughnessy:

The accounts for the year ended June 30, 1905, show the following results:

Gross earnings.....	\$50,481,882 25
Working expenses.....	35,006,793 79
Net earnings.....	\$15,475,088 46
Interest on deposits and loans.....	\$374,531 47
Interest due from Duluth, South Shore & Atlantic Ry. Co. on consolidated bonds held by the Co.	\$604,280 00
Less advanced by the Co.....	179,280 00
	425,000 00
Interest from Minneapolis, St. Paul & Sault Ste. Marie Ry. Co. on bonds held by the Co.	159,720 00
Interest from Mineral Range Rd. Co. on bonds held by the Co.	50,160 00
Interest from Montreal & Atlantic Ry. on bonds held by the Co.....	47,250 00
Dividends on Minneapolis, St. Paul & Sault Ste. Marie Ry. preferred and ordinary stocks held by the Co.	530,002 00
	1,584,663 47
	\$17,059,751 93
Deduct fixed charges.....	7,954,065 76
Surplus.....	\$ 9,105,686 17
Deduct amount applied against cost of steamships and for contribution to Pension Fund.....	230,000 00
From this there has been charged a half-yearly dividend on preference stock of 2% paid April 1, 1905.....	\$ 757,066 66
And a half-yearly dividend on ordinary stock of 3%, paid April 1, 1905.....	2,535,000 00
	3,292,066 66
	\$ 5,583,619 51
From this there has been declared a second half-yearly dividend on preference stock of 2%, payable Oct. 2, 1905..	\$ 757,066 66
And a second half-yearly dividend on ordinary stock of 3%, payable Oct. 2, 1905.....	3,042,000 00

The working expenses for the year were 69.35% of the gross earnings, and the net earnings 30.65%, compared with 69.42 and 30.58% respectively in 1904. Four per cent. consolidated debenture stock to the amount of £1,406,575 was created and sold, and the proceeds were applied towards the

construction of branch lines and the acquisition of mortgage bonds of the Calgary and Edmonton Ry., the Tillsonburg, Lake Erie and Pacific Ry., the Northern Colonization Ry., and the Guelph and Goderich Ry., the interest on which had been guaranteed by your company. Preference stock to the amount of £900,000 was also created and sold and the proceeds applied to purposes for which your authority had already been obtained.

During the year 509,386 acres of land were sold for \$2,446,300, an average of \$4.80 per acre, and from the proceeds of land sales a further amount of \$3,500,000 was deposited with the Dominion Government, on account of the \$15,000,000 land bonds mortgage, leaving a balance due on account of this mortgage of \$8,000,000, against which are deferred payments, on account of land and townsites sold, of \$14,659,179.63.

Your company's guarantee was endorsed on consolidated bonds of the Minneapolis, St. Paul and Sault Ste. Marie Ry. Co. to the amount of \$3,620,000, representing the cost of 181 miles of additional railway constructed in extension of its system, which extension promises to add to the already prosperous business of that company.

Two additional steamships for the Atlantic service of 14,500 tons gross register and 18½ knots sea speed are being constructed under a contract authorized at the last annual meeting. It is expected that these will be ready for service on the opening of St. Lawrence navigation in 1906. Their cost with equipment will be approximately £800,000, and a resolution authorizing the issue and sale of the necessary securities to meet this expenditure will be submitted for your approval.

For the purpose of reaching the trade and participating in the development of Vancouver Island, your directors secured the necessary legislation and made the requisite agreements to enable you to acquire control of the Esquimalt and Nanaimo Ry. extending from Victoria to Wellington, 78 miles. The Esquimalt and Nanaimo Ry. Co. owns a land grant on Vancouver Island of approximately 1,600,000 acres. You will be asked to authorize a lease of the railway of the Esquimalt Co. to your company for a term of years, at a rental equal to the interest at 4% per annum, payable on bonds from time to time issued by that company with the consent of your company, to an amount not exceeding \$30,000 per mile of the railway, upon the condition that the Esquimalt Co. shall apply the proceeds of all sales of land towards the redemption of said bonds at par until such time as the total amount of said bonds outstanding shall have been reduced from \$30,000 per mile to \$14,000 per mile of railway.

Your directors have entered into an agreement for an interchange of traffic at the International Boundary with the Spokane International Ry. Co. whose line will be connected with yours by a branch, 12 miles in length, now under construction from Vahk on your British Columbia Southern line. By this means your railway and its connections will secure access to Spokane, a most important commercial and industrial centre in the State of Washington.

The Nicola, Kamloops & Similkameen Ry. Co. is constructing a railway from Spence's Bridge on your main line in British Columbia to the coal fields in Nicola valley, a distance of 45 miles. It is intended that this line shall be gradually extended through the Similkameen valley, and, eventually, to a connection with your Columbia and Western section at Midway. There will be submitted for your approval a resolution authorizing a lease by your company of the section now under construction at a rental equal to the interest at 4% per annum on bonds of that company issued with the consent of

your company to an amount not exceeding \$30,000 per mile.

On all your traffic to and through St. John, N.B., you have been required to pay tolls to the St. John Bridge and Railway Extension Co., owners of the bridge between your terminus at Carleton and St. John. With the increase in business these tolls became burdensome, and your directors decided to ask your authority to build another bridge unless some more favorable agreement could be made with the proprietors of the present structure. An arrangement has been made that gives your company absolute control of the property at a cost of \$200,000, and a resolution will be brought before the meeting authorizing capital expenditure to that amount. The property is subject to outstanding mortgage bonds to the amount of \$125,000, bearing interest at 5% per annum and to a Government lien of \$433,900 at 4% per annum. This transaction will, on the basis of last year's traffic, represent to your company an annual saving of over \$30,000.

To serve a large district that is being rapidly settled it is necessary to build a branch line from the vicinity of Wolseley, on your main line, to Reston on the Souris branch, a distance of 122 miles. A resolution will be submitted approving the construction of this line and authorizing the issue and sale of the requisite 4% consolidated debenture stock for the purpose.

There will be laid on the table for your further information, and you will be asked to approve an agreement between your company and the British Columbia Electric Ry. Co. for the operation by electricity of your Vancouver and Lulu Island Ry. between Vancouver and Steveston, in order that a more frequent service may be provided than would be practicable on a line operated by steam. The agreement provides, amongst other things, that the B.C. Electric Ry. Co. shall equip the railway as an electric line and operate it continuously over its whole length, giving a good and sufficient service, until Feb. 11, 1924, unless the property of the Electric Company be taken over by the city of Vancouver, in 1919, in which event the contract will lapse.

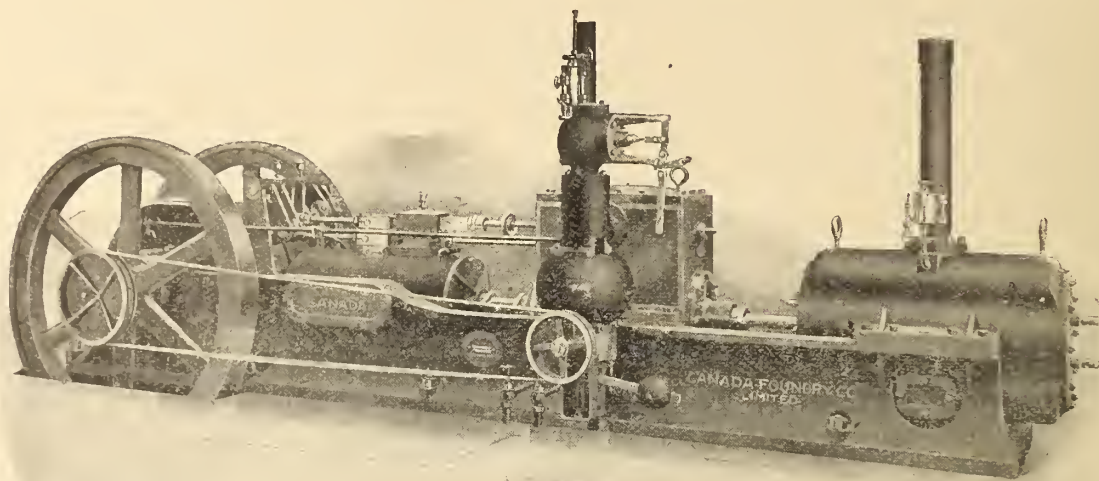
The construction of the second track between Winnipeg and Fort William, mentioned at the last annual meeting, is proceeding, and it is expected that the work will be completed in about three years, by which time everything indicates that it will be urgently required. In the meantime, as the result of your expenditures for the reduction of gradients and general improvements, enabling you to run heavier locomotives and cars, you can move over the single track between Winnipeg and Fort William a very much larger tonnage than would have been possible in previous conditions.

The construction of the main canal and of secondary canal A, for the irrigation of the company's lands between Calgary and Gleichen, is progressing satisfactorily, and it is expected that about 110,000 acres of irrigated land will be available early next year. Work will then be prosecuted on secondary canal B, for the purpose of bringing water on about 200,000 additional acres.

For some time past your directors have been engaged in the development of a coal mine on the company's lands near Banff. The development work is nearing completion and the mine promises not only to safeguard your fuel supply in that district but to be a source of considerable profit.

You will observe that the item "Cash subsidies from Dominion and Provincial Governments and Municipalities," and so much of the proceeds of land sales as were applied to the construction and equipment of the railway, have been transferred from the credit side of the balance sheet, where

CANADA AIR COMPRESSORS



**STRAIGHT LINE OR DUPLEX. SIMPLE OR COMPOUND
STEAM, BELT, GEAR, OR MOTOR DRIVEN**

**MADE FOR ALL CONDITIONS OF SERVICE IN
MACHINE SHOPS, FOUNDRIES, MINES, REFINERIES
BREWERIES, BLOCK SIGNAL WORK, ETC.**

SEND FOR BULLETIN No. 26

CHRISTENSEN AIR BRAKES FOR ELECTRIC TRAMWAY SERVICE

CANADA FOUNDRY COMPANY

LIMITED

HEAD OFFICE

TORONTO, ONTARIO

DISTRICT OFFICES:

MONTREAL, HALIFAX, OTTAWA, WINNIPEG, CALGARY, VANCOUVER, ROSSLAND.

they have appeared up to the present time, to the other side of the account in reduction of the item "Cost of Railway and Equipment." After providing for the outstanding land grant bonds the balance of the proceeds of sales amounting to \$7,676,552 is a free asset, and may properly be classed with your surplus, available for any purpose.

Of the additional \$25,500,000 ordinary capital stock authorized at the last annual meeting, the amount of \$16,900,000 was offered to the shareholders at par, and all was subscribed for excepting 2,500 shares, which will be sold in the open market.

Your directors recommend that an amount equivalent to 15% of the last issue of ordinary share capital, or \$2,535,000 be transferred, as was done in the case of the previous issue, from the accumulated surplus earnings; this amount to be transferred to a special fund for improvements, and for such other purposes as may conduce to the company's advantage.

In accordance with the by-laws the following directors will retire from office at the approaching annual meeting; they are eligible for re-election: C. R. Hosmer, Hon. R. Mackay, D. McNicoll, R. G. Reid. The company sustained a serious loss by the death in March last of G. R. Harris, who had been a member of your Board since 1885. He was always an active and zealous member of the board, and at all times evinced the greatest interest in the welfare of the company.

CONDENSED BALANCE SHEET.

Cost of railway and equipment.....	\$275,837,497 22
Less amount subsidies and bonuses received.....	\$30,752,195 07
Less proceeds of land sales expended in construction.....	36,193,521 00
	<u>\$66,945,716 07</u>
Ocean, lake and river steamships.....	\$15,217,113 18
Less amount applied in reduction of cost.....	2,268,224 69
	<u>12,948,888 49</u>
Acquired securities held (cost):	52,300,534 22
Properties held in trust for the company.....	1,935,608 24
Deferred payments on land and townsite sales.....	\$14,659,179 63
Advances:	
To Duluth, South Shore & Atlantic Ry., car trust, etc.,	236 213 19
Material and supplies on hand	8,191,297 27
Station and traffic balances, accounts receivable.....	3,870,440 19
Imperial and Dominion Governments: Accounts due for mail transportation.....	254,612 42
Cash in hand.....	16,496,291 41
	<u>\$319,784,846 21</u>

In addition to the above assets, the company owns 10,863,977 acres of land in Manitoba and the Territories (average sales past year \$4.80 per acre) and 3,681,480 acres in British Columbia.

Capital stock.....	\$84,500,000 00
Payments on subscription to new issue capital stock \$16,900,000.00.....	14,238,074 00
4% preference stock.....	37,853,333 33
4% consolidated debenture stock.....	89,200,549 32
First mortgage bonds, 5%.....	\$34,998,633 33
Canada Central Ry., 6%.....	973,333 33
Due Province of Quebec on Q.M.O. & O. & North Shore Ry.....	7,000,000 00
Algoma branch, 1st mortgage.....	3,650,000 00
North Shore Ry., 1st mortgage.....	616,119 67
	<u>47,238,086 33</u>
Land grant bonds—	
Guaranteed 3½% land bonds	15,000,000 00
Less amount paid Dominion Government towards redemption.....	7,000,000 00
	<u>8,000,000 00</u>
Current accounts, pay rolls and traffic balances.....	8,183,221 95

Interest on funded debt and rental of leased lines—	
Coupons due July, 1905, and including coupons overdue, not presented.....	1,484,203 94
Accrued to date, not due.....	284,879 96
	<u>1,769,083 90</u>
Equipment replacement fund	874,279 55
Steamship replacement fund	340,666 67
Land grant—	
Sales of land and town sites.	7,676,552 25
Surplus.....	19,919,998 91
	<u>\$319,784,846 21</u>

FIXED CHARGES FOR YEAR ENDED JUNE 30.

1st Mortgage Bonds 5% due July 1, 1915..	\$ 1,749,931 66
Province of Quebec, 4½%.....	283,500 00
Canada Central Ry. 2nd mortgage 6% bonds due Nov. 1, 1910.....	58,400 00
St. Lawrence & Ottawa Ry. 4% 1st mortgage bonds due June 15, 1910.....	38,933 34
Man. Southwestern Colonization Ry. 1st mortgage 5% bonds due June 1, 1934.....	127,200 00
Toronto, Grey & Bruce Ry. rental.....	140,000 00
Ontario & Quebec Ry. Debenture Stock 5% Ontario & Quebec Ry. (Ordinary Stock) 6%.....	975,129 56
	<u>120,000 00</u>
Atlantic & North-West Ry. 1st mortgage bonds (less Government proportion) due Jan. 1, 1937.....	136,333 34
Algoma Branch 5% 1st mortgage bonds due July 1, 1937.....	182,500 00
Rental Calgary & Edmonton Ry.....	138,357 60
Rental, Farnham to Brigham Jct.....	1,400 00
Rental, Mattawamkeag to Vanceboro.....	23,800 00
Rental, New Brunswick Ry. System.....	372,829 74
Rental of terminals at Toronto.....	31,553 64
Rental of terminals at Hamilton.....	33,754 40
Rental, Hamilton Jct. to Toronto.....	40,027 86
Rental St. Stephen and Milltown Ry.....	2,050 00
Rental Lindsay, Bobcaygeon & Pontypool Ry.....	9,661 54
Rental, Lachine Canal branch.....	1,021 80
Interest on Montreal & Western Ry. purchase.....	19,235 77
Interest on equipment leases.....	146,643 00

4% CONSOLIDATED DEBENTURE STOCK.

Interest from July 1, 1904.....	\$3,313,675 39
Interest from Jan. 1, 1905.....	16,127 15
	<u>\$3,329,802 54</u>
Less received from subsidy Northern Colonization Ry.....	8,000 00
	<u>\$3,321,802 54</u>
	<u>\$7,954,005 76</u>

EARNINGS FOR YEAR ENDED JUNE 30, 1905.

Passengers.....	\$13,583,052 11
Freight.....	31,725,290 10
Mails.....	793,896 48
Sleeping cars, express, elevators, telegraph and miscellaneous, including profit from ocean steamships.....	4,469,643 56
Total.....	<u>\$50,481,882 25</u>

WORKING EXPENSES FOR YEAR ENDED JUNE 30.

Conducting transportation.....	\$16,905,848 92
Maintenance of way and structures.....	8,527,935 07
Maintenance of equipment.....	6,616,257 76
Parlor and sleeping car expenses.....	172,123 61
Expenses of lake and river steamers.....	515,397 02
General expenses.....	1,634,698 91
Commercial telegraph.....	635,432 50
Total.....	<u>\$35,006,793 97</u>

DESCRIPTION OF FREIGHT FORWARDED.

	1905	1904
Flour, brls.....	5,010,868	5,270,432
Grain, bush.....	59,739,180	52,999,151
Live stock, head.....	1,360,560	1,314,814
Lumber, ft.....	1,435,758,930	1,267,804,321
Firewood, cords.....	261,794	270,803
Manufactured articles, tons.....	3,250,067	3,119,659
All other articles, tons.....	3,894,250	3,620,515

FREIGHT TRAFFIC, YEAR ENDED JUNE 30.

	1905	1904
No. of tons carried.....	11,892,204	11,135,896
No. of tons carried one mile.....	4,155,256,309	3,809,801,952
Earnings per ton per mile.....	0.76 cts.	0.77 cts.

PASSENGER TRAFFIC, YEAR ENDED JUNE 30.

	1905	1904
No. of passengers carried.....	6,891,511	6,251,471
No. of passengers carried one mile.....	736,774,844	677,949,490
Earnings per passenger per mile.....	1.84 cts.	1.83 cts.

TRAIN TRAFFIC STATISTICS.

	1905	1904	Increase or decrease.
Passenger trains.....	9,797,618	11,135,896	Per cent.
Freight ".....	14,429,739	4,494	
Mixed ".....	1,537,781	1,790	
Total trains.....	25,765,138	6,534	

CAR MILEAGE.

PASSENGER—		
Coaches and P.D. and S. cars.....	47,640,910	10.08+
Combination cars.....	2,012,104	6.96-
Baggage, mail and express cars.....	18,102,150	14.99+

Total passenger cars..... 67,755,254 10.74+

FREIGHT—		
Loaded.....	262,519,047	7.86+
Empty.....	71,001,171	16.70+
Caboose.....	15,390,124	4.69+

Total freight cars..... 348,910,342 9.40+

Passenger cars per traffic train mile.....	5.98	1.36+
Freight cars per traffic train mile.....	21.85	5.35+

PASSENGER TRAFFIC.

Passengers carried (earning revenue).....	6,800,427	10.47+
Passengers carried (earning revenue) one mile.....	724,981,215	8.74+
Passengers carried (earning revenue) one mile per mile of road.....	85,437	3.17+
Average journey per passenger..... miles	106.60	1.57-
Average amount received per passenger.....	\$ 1.91	1.04-
Average amount received per passenger mile..... cts.	1.79	.56+
Average number of passengers per train mile.....	63.96	.48-
Average number of passengers per car mile.....	14.90	.86-
Revenue from passengers per passenger car mile..... cts.	20.71	.15-
Total passenger train earnings per train mile.....	\$ 1.40	
Total passenger train earnings per mile of road.....	\$ 1.804.30	3.57+

FREIGHT TRAFFIC.

Tons of revenue freight carried one mile.....	4,018,602,710	9.47+
Tons non-revenue freight carried one mile.....	777,323,013	25.80+
Total tons (all classes) freight carried one mile.....	4,795,925,723	11.83+
Tons of revenue freight carried one mile per mile of road.....	472,432	4.16+
Tons of non-revenue freight carried one mile per mile of road.....	91,418	19.23+
Total tons (all classes) freight carried one mile per mile of road.....	563,850	6.33+
Average amount received per ton per mile of revenue freight..... cts.	0.767	.78-
Average no. of tons of revenue freight per train mile.....	251.69	5.42+
Average no. of tons of non-rev. freight per train mile.....	48.68	21.12+
Average no. of tons of (all classes) freight per train mile.....	300.37	7.68+
Average no. of tons of revenue freight per loaded car mile.....	15.31	1.53+
Average no. of tons of non-rev. freight per loaded car mile.....	2.96	16.53+
Average no. of tons of (all classes) freight per loaded car mile.....	18.27	3.69+
Freight train earnings per loaded car mile..... cts.	11.75	.86+
Freight train earnings per train mile.....	\$ 1.93	4.32+
Freight train earnings per mile of road.....	\$ 3,027.04	3.39+
+ Increase. - Decrease.		

Earnings of lake and river steamers not included in this statement.

	1905	1904
Mileage included in C.P.R. traffic returns.....	8,568.0	8,332.0
Mileage of other lines worked.....	438.0	438.0
Mileage under construction.....	481.4	338.5
	<u>9487.4</u>	<u>9108.5</u>

Mileage of Minneapolis, St. Paul & Sault Ste. Marie Ry..... 1829.2 1648.1

Mileage of Duluth, South Shore & Atlantic Ry..... 505.0 505.0

Total..... 11,881.6 11,384.6

The Canadian Fairbanks Co. has shipped a complete machine shop equipment consisting of power steam hammers, punch and shear lathes, drill presses and a full set of small tools to the Fiji Islands.

The Westinghouse Companies' Publishing Department issued a special booklet describing in a general way the lines of apparatus and machinery for construction and operation of electric railways, for the recent meeting of the American Street Railway Association at Philadelphia. It has also issued circular 1120 describing no. 113 railway motor for direct current service; and circular 1123, describing Westinghouse prepayment Watt meters.

Flour and Other Grain Product Rates.

The Board of Railway Commissioners issued the following order Sept. 4. In the matter of the application of the C.P.R. Co. and the G.T.R. Co., that the order of the Board in the matter of the complaint of the Dominion Millers' Association, dated July 25 (as published in the RAILWAY AND SHIPPING WORLD for Sept., pg. 401) be held in abeyance pending an opportunity to the railway companies to present to the Board the position in which they will be placed by the enforcement of the rate basis ordered. Whereas by the said order, it was provided, inter alia, that certain station groupings and percentages of the Chicago to New York rates should be substituted for those previously adopted on freight traffic for export from Ontario to the Canadian and U.S. Atlantic seaboard. And whereas at the hearing on Aug. 29, it was represented to the Board, on behalf of the railway companies, that the said order would work a hardship and injustice to them in respect of traffic to New York and ports south thereof, and the Board was urged to approve in lieu of the station groupings and percentages provided in said order, a new list of station groupings and percentages which they considered should govern the rates to New York and ports south thereof, the said new lists being from certain groups more favorable to the railways than that embodied in the order dated July 25, but more favorable to the public than the basis of rates heretofore charged. Upon the report of the Chief Traffic Officer of the Board recommending the acceptance of the said new list of stations and percentages in substitution of those provided for in the order of July 25. It is ordered that the order, dated July 25, be amended by substituting, in lieu of the station groupings and percentages embodied therein, the following station groupings and percentages of the Chicago to New York rates to New York, with the customary differentials to Philadelphia and Baltimore:

Group no.

1. Niagara Falls to Paris, Brantford, Jarvis and Niagara Peninsula 70%
2. East of Hamilton to Toronto, inclusive, thence west along main line Grand Trunk Ry. to Berlin and Waterloo and other points south thereof not included in Group 1. 73%
3. East of Toronto to Port Hope and Peterboro, inclusive, thence west along line Grand Trunk to Lindsay, through Manilla and Blackwater Jet. to Scarboro and Whitby and stations within that group; also north of Waterloo, Guelph, Georgetown and Brampton, including line of C.P.R. Brampton to Elora; also north of Toronto to King and Kleinburg; also north of Port Hope to Peterboro and intermediate stations 75%
4. East of Port Hope and Peterboro to Kingston and Sharbot Lake, inclusive, and intermediate territory; Madoc branch, west of Kleinburg to Grand Valley and Shelburne, both inclusive; also intermediate points north of Inglewood and Cataract; north of Inglewood to Alliston and Allandale; north of King to Barrie; north of Stouffville to Jackson's Point; north of Blackwater Jet. to Lorneville Jet.; north of Lindsay to Fenelon Falls and Bobcaygeon; north of Peterboro to Lakefield. 78%
5. North of Alliston to Collingwood; north of Barrie to Atherly Jet., Midland, Penetang, Collingwood, north Lorneville Jet. to Cobocok; west of Lorneville Jet. to Orillia 82%
6. West of Collingwood to Meaford 85%

The percentages from stations not included in the list given above to be the same as set forth in the order of July 25.

The Ocean Limited, the summer fast train on the Intercolonial Railway, made its last run for the season east bound from Montreal to Halifax, Sept. 15, and west-bound from Halifax to Montreal, Sept. 16.

The Canadian Westinghouse Co. has issued circulars dealing with Westinghouse type c.c.l. solid frame polyphase induction motors, direct current self-contained generators, and Westinghouse regulating and reversing controllers.

The Kahn

TRUSSED BAR



Diagram showing the action of the Kahn Trussed Bar, indicating the lines of stress. Note that the concrete takes all compressive stresses, and the steel all tensile stresses.

NOTE THE TRUSS ACTION



A 42 foot span of reinforced concrete used in the construction of the Western State Normal School, Kalamazoo, Mich. Built according to the Kahn System of reinforced concrete.



THE KAHN TRUSSED BAR

offers the following advantages over any other known method of reinforcing concrete:

It has sustained the heaviest beam tests on record.

Shear members are obtained from that portion of the steel which in other forms of reinforcement is wasted, thus making a saving in steel.

The diagonals being integral with the bar, results in great saving of time and labor.

Our engineering department is prepared to furnish complete plans and designs for any class of work. Competent superintendents furnished when required.

For full information, address

TRUSSED CONCRETE STEEL CO.

GUSTAVE KAHN, Manager

18 Toronto Street

TORONTO

Trussed Concrete Steel Co.



DESK 9 WAYNE COUNTY BANK BUILDING — DETROIT, MICHIGAN

October Birthdays.

Many happy returns of the day to

E. P. Allen, Travelling Passenger Agent, C.P.R., Syracuse, N.Y., born Oct. 21, 1839.

R. A. Burford, City Passenger and Freight Agent, C.P.R., Buffalo, N.Y., born at Brooklyn, N.Y., Oct. 4, 1878.

G. E. Burns, Freight Claim Agent, C.P.R., lines east of Port Arthur, Ont., born at St. Thomas, Ont., Oct. 6, 1863.

T. C. Burgess, Commercial Agent, G.T.R., Minneapolis, Minn., born at New York City, Oct. 2, 1853.

C. E. Cartwright, Division Engineer C.P.R., Vancouver, B.C., born at Toronto, Oct. 14, 1864.

James Connée, M.P., railway contractor, etc., Port Arthur, Ont., born at Sydenham, Ont., Oct. 13, 1848.

G. L. Courtney, District Freight and Passenger Agent, C.P.R., Victoria, B.C., born at Chatham, Ont., Oct. 7, 1868.

F. S. Darling, Division Engineer of Construction, C.P.R., Toronto, born at Burlington, R.I., Oct. 8, 1863.

J. Earls, ex-Secretary and Treasurer Canadian Freight Association, Toronto, Ont., born in Ireland, Oct. 30, 1838.

W. H. Harper, C.P.R. ticket agent, Chatham, Ont., born at Napierville, Que., Oct. 19, 1850.

A. H. Harris, C.P.R. freight department Montreal, Que., born in Devonshire, Eng., Oct. 15, 1855.

W. P. Fitzsimons, Manager Lackawanna-Grand Trunk Line, Buffalo, N.Y., born at Detroit, Mich., Oct. 27, 1868.

C. F. Gildersleeve, President Lake Ontario and Bay of Quinte Steamboat Co., Kingston, Ont., born there Oct. 17, 1833.

B. W. Greer, General Freight Agent, C.P.R., Vancouver, B.C., born at Aldboro, Ont., Oct. 4, 1867.

W. M. Kirkpatrick, Acting Export Agent, C.P.R., Montreal, born at Kingston, Ont., Oct. 8, 1874.

J. W. Leonard, Manager of Construction, C.P.R. Lines in Ontario, Toronto, born at Epsom, Ont., Oct., 1858.

W. T. Marlow, Import Freight Agent, C.P.R., Montreal, born at Limerick, Ireland, Oct. 25, 1872.

R. Marpole, General Superintendent C.P.R. Pacific Division, Vancouver, born in Montgomeryshire, Wales, Oct. 9, 1850.

W. H. Moore, Secretary Canadian Northern Ry., etc., Toronto, born Oct. 19, 1872.

G. Olds, ex-General Traffic Manager C.P.R., born at Stapleton, Gloucestershire, Eng., Oct. 29, 1832.

W. H. Olive, Assistant General Freight Agent, I.C.R., Montreal, born at St. John, N.B., Aug. 5, 1837.

H. Paton, Secretary-Treasurer Shedden Forwarding Co., director Bell Telephone Co., Montreal, born at Johnstown, Renfrew, Scotland, Oct. 5, 1852.

C. A. Pipon, Passenger Agent for Ontario, International Mercantile Marine Co., Toronto, born at St. Heliers, Jersey, Oct. 19, 1855.

D. Pottinger, General Manager Canadian Government Rys. Moncton, N.B., born at Pictou, N.S., Oct. 7, 1843.

N. L. Rand, Master Mechanic, I.C.R., Moncton, N.B., born at Shediac, N.B., Oct. 28, 1843.

G. B. Reeve, ex-Second Vice-President and General Manager G.T.R., La Mirada, Cal., born in Surrey, Eng., Oct. 23, 1840.

Sir Thos. G. Shaughnessy, President C.P.R. Montreal, born at Milwaukee, Wis., Oct. 6, 1853.

C. W. Spencer, Manager Mackenzie, Mann & Co.'s lines east of Port Arthur, Ont., Montreal, born at Kemptville, Ont., Oct. 31, 1857.

W. S. Taylor, Treasurer C.P.R., Montreal, born at Dornoch, Sutherlandshire, Scotland, Oct. 18, 1839.

L. H. Wheaton, ex-Chief Engineer and

General Superintendent Halifax and Yarmouth Ry., born at Sackville, N.B., Oct. 5, 1866.

E. A. Williams, ex-Superintendent Rolling Stock, C.P.R., now Assistant General Manager Erie Rd., at New York, born at Wiscasset, Me., Oct. 4, 1848.

Freight Rates on Metallic Shingles.

The Board of Railway Commissioners issued the following order Sept. 13, under date of July 5: In the matter of the application of the Canadian Manufacturers' Association and the manufacturers of metallic shingles, under the Railway Act, 1903, to the Board for an order reducing the rating of metallic shingles from 5th class and restoring it to 7th class of the Canadian Freight Classification; counsel having been heard for the Canadian Manufacturers' Association and the Canadian Freight Association, and upon the evidence adduced—it is ordered that the C.P.R. Co., the G.T.R. Co., the Canadian Northern Ry. Co., and such other railway companies as are represented by the Canadian Freight Association, be, and they are hereby, ordered to establish, with no greater delay than may be absolutely necessary for the publication of their tariffs, commodity rates on metallic shingles, in earloads, equal to the rates at which metallic shingles, in earloads, were carried immediately before the change of classification in March, 1901, and that the same rates be applied on metallic siding; mixed earloads of the two articles to be carried in all cases at the same rates as charged on straight earloads.

Quebec Bridge and Railway Co.

The report presented at the annual meeting on Sept. 5, stated that as soon as the bond issue authorized at the special general meeting of Jan., 1904, could have been delivered by the engraver, the same consisting of 11,696 bonds in denominations of £100 and £200 sterling, were signed by the President and Secretary and handed to the Royal Trust Co. in conformity with the mortgage trust deed. As the financial market was not then found favorable for a sale of the bonds, temporary arrangements were made with the Bank of Montreal, so as to continue the bridge work without interruption.

The report of E. A. Hoare, Chief Engineer, was appended. Following are extracts:—

BRIDGE OVER RIVER ST. LAWRENCE.—The progress of work at all points for this structure can be considered as very satisfactory. The total metal manufactured amounts to 24,500 tons, out of which 8,300 tons are delivered at yard near the bridge site and 2,500 tons of permanent steel erected. Previous to the erection of any part of the permanent structure for the south anchor arm, a massive temporary steel structure, for supporting the erecting traveller and members of the bridge, had to be constructed and placed in position, together with an interior trestle very substantially built of southern pine timber, principally used for railway tracks for delivery of materials, and deck space for working purposes. These heavy structures were completed early this summer, together with the steel traveller and other plant all completely rigged with hoisting machinery, and equipped with the most complete electrical power and modern appliances, all of which will be used for the construction of the southern half of the bridge, to be afterwards removed for the same operation on the north side.

RAILWAY CONSTRUCTION.—On the south shore the bridges over the River Chaudière, St. Nicholas public road, and the long temporary trestles required for construction trains and delivery of structural materials for the cantilever bridge have been completed, and considerable progress made towards the

completion of the heavy embankments—with steam shovel and cars—between the I.C.R. and the bridge, and the heavy rock cuttings being finished early in the summer, enabled the railway tracks—which were partly laid last year—to be continued to the bridge. Safety signals have been erected at the lumber railway crossing. On the north side work is in progress between the cantilever bridge and Point à Pizeau, consisting chiefly of earth and rock excavation, construction of bridges over public roads, culverts, etc., in addition to the delivery of track and other materials made last year.

The report was adopted, as also was a financial statement, which is not made public, and directors were elected. The officers and directors for the current year are:—President, S. N. Parent; Vice-President, R. Audette; other directors: Hon. N. Garneau; Hon. J. Sharples, V. Boswell, G. LeMoine, H.M. Price, Quebec; H. A. Allan, Montreal.

Canadian Northern Ry. Earnings, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904-05, from July 1, 1905:

Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July... \$395,100	\$252,600	\$142,500	\$51,400+
Approximate earnings for Aug., \$357,000, against \$302,700 for Aug., 1904.			

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1903-04, from July 1, 1904:—

Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July \$4,629,174.95	\$2,991,397.29	\$1,449,652.14	\$188,125.52+
Approximate earnings for Aug., \$4,718,000 against \$4,394,000 for Aug., 1904.			

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for July, \$269,497.87; net earnings, \$102,810.86 against \$236,908.70 gross and \$87,217.50 net for July, 1904. Approximate earnings for Aug., \$287,670 against \$239,830 for Aug., 1904.

MINERAL RANGE RY.—Approximate earnings for Aug., \$68,000, against \$56,650 for Aug., 1904.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for July, \$777,433.97; net earnings, \$345,918.32, against \$641,479.17 gross and \$304,167.69 net for July, 1904. Approximate earnings for Aug., \$775,050 against \$610,149 for Aug., 1904.

Canadian Pacific Railway Land Sales.

	Acres.	Amount.
	1905.	1904.
July...	\$8,477.37	\$6,425.75
Aug...	\$8,542.44	\$15,669.90
	117,019.81	52,095.65
		\$632,374.86
		\$206,209.82

Grand Trunk Ry. Earnings, Expenses, etc.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1905.	1904.	Increase, Decrease.
July	\$3,301,254	\$3,108,137	\$193,117

The following figures relate to the individual lines, and are made out in sterling:

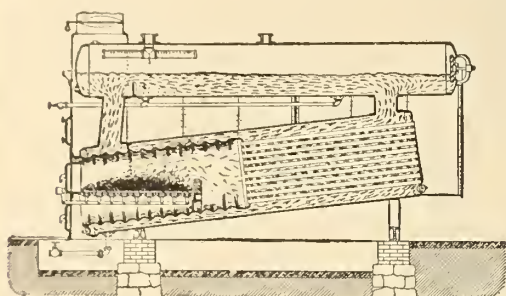
GRAND TRUNK RY. CO.			
Revenue for July:			
	1905.	1904.	Increase, Decrease.
Gross receipts....	£519,800	£517,500	£2,300
Working expenses	355,400	354,000	1,400
Net profit....	£164,400	£163,500	£900

GRAND TRUNK WESTERN RY. CO.			
Revenue for July:			
	1905.	1904.	Increase, Decrease.
Gross receipts....	£81,200	£74,900	£6,300
Working expenses	75,600	74,400	1,200
Net profit....	£5,600	£500	£5,100

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.			
Revenue for July:			
	1905.	1904.	Increase, Decrease.
Gross receipts....	£28,500	£26,700	£1,800
Working expenses	19,800	19,000	800
Net profit ..	£8,700	£7,700	£1,000

TRAFFIC RECEIPTS OF THE SYSTEM.			
Aggregate from July 1 to Aug. 31:			
	1905.	1904.	Increase, Decrease.
Grand Trunk..	£1,065,678	£1,047,815	£17,863
G. T. Western	181,981	150,350	31,632
D. G. H. & M.	60,235	59,624	611
Total....	£1,307,894	£1,257,790	£50,000

REDUCE YOUR COAL BILL



Your coal bill is a large item in your expense account, and if it could be reduced **TEN PER CENT.** it would mean a large addition to your net profit.

A **ROBB-MUMFORD** internally fired boiler will make a saving of at least **TEN PER CENT.** over an externally fired boiler, and in some cases considerably more

Robb Engineering Co., Ltd., Amherst, N.S.

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J. F. Porter, 355 Carlton Street, **WINNIPEG**

The NORTON BALL-BEARING JACK

**A CANADIAN INVENTION
MADE IN CANADA FOR CANADIANS
THE BALL-BEARINGS**

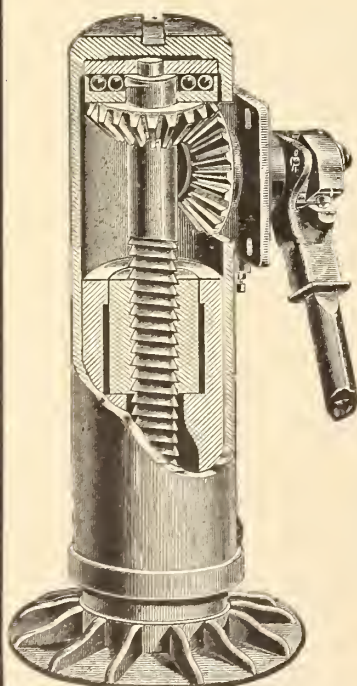
reduce the friction and increase the power of the Jack.

THE GEARS

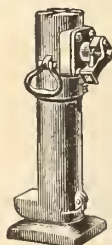
are cut from solid steel forgings, thereby giving highest efficiency and greatest durability.

THE SCREW

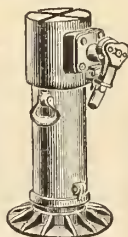
runs in a Phosphor Bronze Nut and is covered by a sliding sleeve which takes all the side strain, prevents the Screw from bending, and protects the working parts from Grit and Rust.



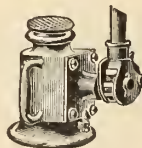
Sectional View of Norton Jack.



Foot-Lift Jack.



35 Ton Jack.



Journal Jack.

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COATICOOK, PROV. QUEBEC.

Stock carried by

W. H. C. MUSSEN & CO., Montreal.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Canada Atlantic Ry.—The work of strengthening the bridges on the line between Parry Sound, Ont., and Swanton, Vt., has been commenced by the G.T.R., although the line has not been formally transferred to it. (Aug., pg. 349.)

Central Ontario Ry.—The Ontario courts have authorized the C.O. Ry. to expend \$25,000 upon further construction from near Bancroft, to effect a junction with the Canada Atlantic Ry. at Whitney, Ont. A contract has been let for the grading of seven miles of track north of Bancroft, and for the construction of a single span steel girder bridge, 100 ft. long, over the York River. (June, pg. 241.)

Detroit River Tunnel.—Work has been in progress since Sept. 1, on test borings for the shaft on the United States side of the river, and it is expected that the real work of sinking the shaft will be commenced Oct. 1. (Sept., pg. 405.)

Great Northern Ry. of Canada.—The company's terminal tracks in Quebec have been overhauled and put in shape for the resumption of traffic to the elevator, in connection with the Quebec Transportation Co.'s steamers from Quebec to Great Britain. (Aug., pg. 351.)

Great Northern Ry. (U.S.)—A line has been practically completed from Starkweather, N.D., to the International boundary near Turtle Mountain, and press reports state that the line will be continued to Brandon, Man., under a Canadian charter. A charter was obtained from the Manitoba Legislature in 1903 by C. S. Mellen, H. P. Upham, C. E. Hamilton, J. S. Ewart and Jas. Fisher, under the title of the Midland Ry. Co. of Manitoba, to construct a network of lines in the province including one from Brandon southerly to the International boundary. (July, pg. 281.)

Guelph and Goderich Ry.—The Board of Railway Commissioners has given the G. and G. Ry. the right to use certain lands and premises of the G.T.R. in Guelph, Ont., and the G.T.R. is given permission to use certain portions of the C.P.R. tracks there. Track-laying on the line is being pushed from the Guelph end, and bridge construction at various points is well forward. Tenders for the construction of the stations on the line have been received. The plans for the entrance of the line into Goderich, as originally located, did not prove satisfactory, and others have been filed showing a number of deviations. (Sept., pg. 405.)

Halifax and South Western Ry.—The grading between Sable River and Shelburne, N.S., has been completed, and work between Sable River and Liverpool is well advanced. R. McColl, Provincial Engineer, recently inspected the line, accompanied by T. H. White, Chief Engineer, and approved of the location of stations. The ballasting of the Middleton and Victoria Beach section has been completed.

Mackenzie, Mann & Co. have ordered from F. H. Hopkins & Co., Montreal, 8,000 tons of English steel rails for this line, delivery to be made this fall.

An order has been placed with the Acton Burrows Co., Toronto, for enamelled iron station name signs for all the stations on the line. (Sept., pg. 407.)

Intercolonial Ry.—A new bridge over the Sackville River, at Bedford, N.S., is under construction in connection with the second track work now in progress. The substructure will consist of two piers 50 ft. high, and 48 by 16 ft. at the top. The foundations

will be of solid concrete, 14 ft. under the river bed. Wing walls are to be built in connection with the abutments of the present bridge. The bridge will consist of three spans having a total length of 320 ft. Ronan & Co., Halifax, N.S., are contractors for the substructure, and the superstructure will be built by the Dominion Bridge Co., Montreal.

Tenders will be received to Oct. 4, for the construction of a bulkhead sea wall of concrete at Halifax, N.S.

James Bay Ry.—According to a decision of the Ontario Government the route on the east side of Lake Couchiching has been approved. The Premier recently stated that the original plan was to construct the line on this side of the lake, and it would appear that the proposal to change the route so as to touch Orillia was sanctioned by the late Government a few days before the elections. It was now suggested that the Government grant a bonus to construct the line round the west side of the lake as a loop line, but the Government, in view of its present policy in regard to railways, felt itself unable to extend the guarantee. (Sept., pg. 407.)

The following are the sub-contractors on the grade between Toronto and Mount Albert under the general contractors, the Northern Construction Co.:—H. Allan, Don, mileage 4 to 5; Chapman, Kettle and Sarvis, Thornhill, mileage 12 to 16; D. McKellar, Richmond Hill, mileage 16 to 18; S. H. O'Connor, Elgin Mills, mileage 18 to 20; O. D. Brooks & Co., Gormley, mileage 21 to 24; McLean & McDonald, Vandoni, mileage 24 to 32; McDonald Bros., Mount Albert, mileage 32 to 38. The sub-contractors between Mount Albert and Washago are: A. F. Mackenzie, Beaverton; Trumble & Tisdale, Beaverton; McLean & Webster, Brechin; P. J. McDonald, Beaverton; McPhee Bros., Washago. The contractors for the cement work are Doyle, McLean & Webster, Don.

Kettle Valley Lines.—Work is in progress on the extension of the line from Grand Forks, up the north fork of the Kettle River to Franklin camp. From this point it is intended ultimately to extend the line through Fire Valley into the Nicola district. H. W. Warrington, Superintendent and Chief Engineer, is in charge of the construction and survey work. (June, pg. 243.)

Klondike Mines Ry.—The Minister of the Interior was in Dawson, Yukon, during Sept. with a view of straightening out affairs in connection with the right of way. Construction was being held up by a number of injunctions secured by those whose property the right of way traversed. Material for the construction of the bridge across the Klondike River has been delivered. The bridge will consist of four spans, and trestle approaches. (Sept., pg. 407.)

Maritime Coal and Ry. Co.—This company was incorporated by the Nova Scotia Legislature in 1904, to construct a line of railway to connect its collieries at Chignecto with the I.C.R. at Maccan station, N.S. The line has been constructed, the gradient being an easy one all the way from the collieries to Maccan. The collieries are only being developed, but during the first year of the company's operations showed a profit of \$34,703.07. The company has authority to issue \$250,000 of bonds, of which \$100,000 has been issued, and \$50,000 were recently offered for subscription. The company has a capital of \$2,000,000, all of which has been issued. Following are the officers for the current year: President, Hon. W. Mitchell, Drummondville, Que.; Vice President, N. Curry, Amherst, N.S.; Managing Director, D. Mitchell, Chignecto, N.S.; other directors: W. Farwell, Sherbrooke, Que.; L. E. Kinton, Montreal. On Sept. 12 it was reported that the output of the collieries was 200 tons a day.

Michigan Central Rd.—Plans for the construction of a subway under the M.C.R. (Canada Southern Ry.) tracks at Ross St., St. Thomas, Ont., have been approved by the City Council. The plans provide for a 36 ft. roadway, with a 6 ft. sidewalk on each side and steps leading down from Centre St. to the west walk. The sidewalks are to be 5 ft. higher than the roadway and protected by railings. The total cost of the work, including sewer connections and damages, is estimated at \$65,000, of which the city will contribute \$18,000. The work will be gone on with in the spring, and will be done under the supervision of the City Engineer. (Feb., pg. 49.)

New Brunswick Coal and Ry. Co.—The contract for the improvements on this line was signed Aug. 24, and work was started Aug. 26. G. Brown, C.E., is in charge of the work for the contractors, Brown Bros. (Sept., pg. 407.)

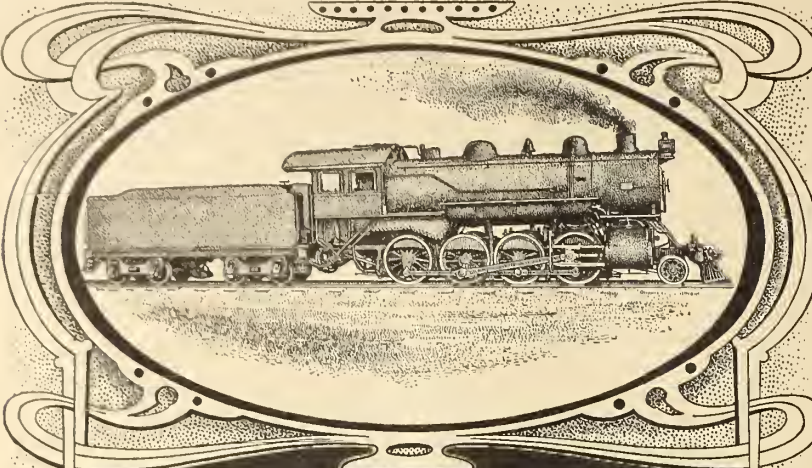
New Brunswick Southern Ry.—The new steel bridge over the Lepreaux River has been completed, and the first regular train crossed over it Sept. 9. Work on the other new bridges being constructed is in progress. (Aug., pg. 351.)

Nicola, Kamloops and Similkameen Coal and Ry. Co.—Some difficulty was experienced for some time in getting all the men required by the sub-contractors, but a recent report states that this has now been overcome, and that full gangs are at work between Spence's Bridge and Nicola Lake, B.C., 45 miles. It is expected that the grading will be completed before the snow flies. (Aug., pg. 351.)

Nova Scotia Eastern Ry.—A press report dated Sept. 7 stated that the issue of \$4,500,000 of 5% mortgage bonds in London, Eng., at 92½ had been a complete failure, not more than \$5,000 having been subscribed. J. W. Grier, Vice-President, Montreal, stated the following day that the Canadian Board thought the amount subscribed by the public was sufficiently large to proceed to allotment, but the Administrative Committee in England thought it should be increased first. He also said that negotiations were in progress with a group of capitalists who offered to take up £200,000 of bonds. A meeting of directors was held in Toronto Sept. 14, when the bond issue was discussed. (Sept., pg. 407.)

Pere Marquette Rd.—The company has recently purchased a considerable area of land in Southwold township, for an extension of its St. Thomas yards. The president has entered upon negotiations with the city of London respecting the improvements necessary on the London and Port Stanley Ry., which the P.M. Rd. operates on lease. The bridges require strengthening in order to carry the heavier traffic offering; snow fences are needed to prevent blockades in winter, and a good many other improvements are necessary. (Jan., pg. 13.)

Prince Edward Island Ry. It is not expected that during the current year there will be anything done in the way of reduction of gradients or laying new rails, except the tracklaying on the extensions between Mount Albion and Vernon River Bridge, on the Murray Harbor Branch under construction, and the Cardigan and Montague branch also under construction. Tracklaying is in progress on this latter branch, and the work is expected to be completed by Oct. 31. The water tanks, of which there will be eight in all, are under construction, and will be completed this fall. These tanks are being erected at Alberton, West Devon, Summerside, Hunter River, Mount Stewart, Georgetown, Dundee and Harmony. They will have a capacity of 25,000 gals. each, and will be worked by steam pumps. The extension to the wharf at Georgetown is under construction, and is expected to be com-



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THE CANADIAN PACIFIC RAILWAY COMPANY have 12,000,000 acres of choice farming lands for sale in Manitoba, Assiniboia, Saskatchewan and Alberta. Manitoba lands and Assiniboia lands east of third meridian, \$4.00 to \$10.00 per acre according to quality and location. Lands in South-Western Assiniboia and Southern Alberta, \$3.50 to \$8.00 per acre. Ranching lands generally \$3.50 to \$4.00 per acre. Northern Alberta and Saskatchewan lands generally \$6.00 to \$8.00 per acre. Maps showing the lands in detail will be sent free on application.

TERMS OF PAYMENT.

An actual settler may purchase not more than 640 acres, on the ten instalment plan by paying a cash instalment at time of purchase, interest at six per cent. on the unpaid purchase money at the end of the first year, and the balance of the principal with interest in nine equal instalments annually thereafter as shewn in the following table:—

160 Acres at \$3.50 per acre, cash payment \$83.90, first year's interest \$28.58 and nine instalments of \$70.00	
" " 4.00 " " 95.85, " " " 32.64 " " 80.00	
" " 4.50 " " 107.85, " " " 36.73 " " 90.00	
" " 5.00 " " 119.85, " " " 40.81 " " 100.00	
" " 5.50 " " 131.80, " " " 44.89 " " 110.00	
" " 6.00 " " 143.80, " " " 48.98 " " 120.00	

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

DISCOUNT FOR CASH.

If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. on five-sixths of the purchase money.

Interest at six per cent. will be charged on overdue instalments.

F. T. GRIFFIN,

Land Commissioner C.P.R. Co., Winnipeg.

CANADA NORTH-WEST LAND CO.

This Company has 750,000 acres of selected lands in Manitoba and Assiniboia which offer excellent opportunities to settlers and investors who desire to secure good lands in well-settled districts. These lands are on sale at the Company's Office at Winnipeg, and at the various land agencies of the Canadian Pacific Railway Company.

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Water, Pneumatic Tools,
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SALES BRANCHES:

172 GRANVILLE STREET, - HALIFAX, N.S.
IMPERIAL BANK BLDG., - MONTREAL, QUE.
FRONT & YONGE STS., - TORONTO, ONT.
89 PRINCESS STREET, - WINNIPEG, MAN.
403 CORDOVA STREET, - VANCOUVER, B.C.

pleted this fall. The Murray Harbor branch is completed, with the exception of a few stations, which are in progress of erection. A telegraph line is being constructed on this branch, and is expected to be completed by the end of Oct. (Sept., pg. 407.)

Prince Edward Island Tunnel.—The engineering staff of the Department of Public Works is looking into all the data in possession of the Department of Railways with respect to a tunnel under Northumberland Strait, between New Brunswick and P.E.I. (June, pg. 243.)

Quebec Bridge and Ry. Co.—The Commissioners for the Transcontinental Ry., together with the Premier, paid a visit of inspection to the site of the bridge and inspected the work in progress there Sept. 18 and 19. (Aug., pg. 351.)

Quebec Oriental Ry.—The Quebec Legislature at its last session granted an extension of time for the starting of construction of this projected line, for a period of two years, and for five years for its completion. It was also given power to enter into agreements with other companies for running powers, making connections, for acquiring other lines, or amalgamating with other lines.

Saguenay and James Bay Ry.—Power was given the S. and J.B. Ry. Co., which has a Quebec charter, to construct a line to connect James Bay and the navigable waters of the Saguenay River, at the last session of the Quebec Legislature, to sell its line or any portion of it preferentially to the Trans-Canada Ry., or the Quebec and Lake St. John Ry.

Salmon River and Northern Ry.—An act was passed last session of the Quebec Legislature incorporating J. S. Fassett, Elmira, N.Y.; G. W. Thayer, Rochester, N.Y.; C. Adsit, Hornersville, N.Y.; W. L. Haskell, F. W. Hibbard, Westmount, Que.; J. Walker, Montreal, as a company with this title to construct a railway from Grenville to Montebello, thence in a northerly direction along the Salmon River valley to Lake Papineau; thence along the North Nation and Rouge River valleys to a point of junction with the Eastern Division of the Grand Trunk Pacific Ry. Power is given to construct telegraph and telephone lines, to acquire ferries, construct docks, develop electric power, construct workshops, etc., and to enter into agreements for running powers over connecting or joining railways, acquiring branch lines, etc. The capital of the company is fixed at \$300,000, and bonds to the extent of \$25,000 a mile of railway may be issued. The company's offices are to be at Montebello, Que.

Spokane International Ry.—This line is being constructed from Spokane, Wash., to the International boundary at a point where it will connect with a branch line under construction from Valhalla on the C.P.R. line. The S.I. Ry. will have a length of 140 miles, the construction work being medium and heavy. There is a great scarcity of labor in Washington, and work on the line is being hindered. It is expected, however, to get it completed in June, 1906. The line will be operated by the S.I.R., of which the principal promoter is D. C. Corbin, Spokane, Wash.

St. Francis Valley Ry.—At the last session of the Quebec Legislature an act was passed incorporating a company with this title—the incorporators being: T. Crockett, S. C. Riou, E. H. Cimon, L. J. Dougal, E. A. Doucet, J. O. Girard, C. E. N. and E. Dube, of Fraserville, Que., and R. Dubord, Quebec. The company is authorized to construct a railway from St. Francis on the Temiscouata Ry., following the St. Francis River valley to Lake Pohenegamook, thence by or near St. Eleuthere parish to a point near the boundary between Quebec and New Bruns-

wick. Power is given to construct branch lines, not exceeding 10 miles in length in any one case, to enter into agreements with other companies, to use steam, electricity or any other motive power; to acquire water powers and develop electrical power; to construct telegraph and telephone lines, and to engage in manufacturing enterprises. The construction of the line is to be commenced within four years and completed within seven years.

St. Maurice Valley Ry.—The Dominion Parliament last session passed an act incorporating a company with this title to construct a railway from Three Rivers to Shawenegan Falls and Grand Mere, 28 miles. The company has been organized in Montreal, and it is understood that the line, when completed, will be operated by the C.P.R. A contract has been let to the St. Maurice Construction Co., 222 St. James St., Montreal, to construct the section of this line from Three Rivers to Shawenegan Falls, 22 miles. The officers of the construction company are: President, Hon. R. Mackay; Vice-President, H. S. Holt; Secretary-Treasurer, H. Murray; chief engineer, L. A. Darey. The municipality of Three Rivers has voted a subsidy of \$3,000 a mile to be paid when the line is completed to Shawenegan Falls, and a further sum of \$18,000 when the line is completed to Grand Mere. The work is to be completed by Dec. 1, 1906, or the subsidies will be forfeited. (July, pg. 287.)

Temiskaming and Northern Ontario Ry.—Tracklaying was commenced on the extension from New Liskeard northerly towards Lake Abitibi, early in Sept., at the point to which work was completed in 1904, viz., 26 miles north of New Liskeard. This was at the point of crossing of the first branch of the White River. We were advised Sept. 23 that about nine miles of track had been laid to that date, this season. Construction gangs are completing the grade to 80 miles north of New Liskeard, and the location surveys have been completed on 30 miles further to Abitibi River. There are two survey parties in the field locating a further 50 or 60 miles so as to connect with the Eastern Division Transcontinental Ry. C. B. Smith, Chairman of the Commission for the construction of the line, on his return to Toronto from a trip over the line, said the country the surveyors have been going through involves great difficulties in construction, there being so much rock; this continues to the height of land at Lake Sesananka, after which the land is fine, light clay all down the banks of the White Clay and Black Rivers to the Abitibi. An exploring party is out looking for a suitable harbor on James Bay. The proposal to utilize Moose Factory at the outlet of Abitibi River is not likely to be adopted, the water being too shallow.

In reference to the proposal to operate the first section of the line from North Bay to New Liskeard by electricity, tenders have been invited for the supply of four electric locomotives—two freight and two passenger. They are to be of the single phase alternating type, the passenger locomotives to be capable of drawing a train of 250 tons between the terminal points in 2 hours and 50 minutes, and the freight locomotives to haul a train of 1,200 tons, at a speed of not less at any point than 10 miles an hour.

The stations on the line are to be equipped with the Acton Burrows Co.'s enamelled iron station name signs. (Sept., pg. 407.)

Vancouver, Victoria and Eastern Ry.—The Board of Railway Commissioners' considered the application for the approval of plans for the proposed line through the Similkameen valley, at Ottawa, Sept. 4. The plans were opposed by the Similkameen and Keremeos Ry., which, though not yet fully organized, has made surveys through

the valley. The Commissioners reserved judgment.

The line has already been completed to Midway, and a contract from Midway to Keremeos, B.C., 118 miles, has been let to Sims and Shields. The entire distance covered by this contract is heavy rock work, the section between Midway and Oroville, being particularly heavy. (Aug., pg. 353.)

Vancouver, Westminster and Yukon Ry.—In connection with its lines in and around Vancouver, B.C., the company will construct a bridge about 2,000 ft. long across the second narrows to the north shore of Burrard Inlet. (Mar., pg. 95.)

Wolfe, Lotbiniere and Megantic Ry.—The Quebec Legislature at its last session passed an act repealing section one of the act of incorporation, and naming the following as the incorporators: F. T. Sairre, Plessisville, Que.; C. W. Campbell, S. Jamieson, W. H. Dunning, L. Noel, D. McMillan, F. Wark, J. W. Mooney, J. A. Wallace, F. X. and L. J. Frechette, J. L. Larochelle, Hon. N. C. Cromier. The company was given a term of three years to commence construction and six years to complete the line from July 1, 1905. A clause in the act provides that the Lotbiniere and Megantic Ry. shall not be prevented from enjoying and exercising the rights it would have if this act had not been passed.

York and Carleton Ry.—An extension of 4½ miles is being constructed westerly from Stanley, N.B., to the mouth of Ryan brook. The extension passes through a settled area, and opens up a large area of timber land from which a considerable traffic is expected. The timber lands contain large quantities of birch and maple and other hard woods. The line at present extends from Cross Creek, on the Intercolonial Ry., (the old Canada Eastern Ry.), to Stanley, a distance of 5.75 miles.

Yonge St. Bridge, Toronto.—Nothing has been done during the year in connection with the projected erection of a bridge over the railway tracks at the foot of Yonge St., Toronto, for which the city obtained an order. Recently the city has passed a resolution authorizing an application to carry the street railway tracks on Yonge St. across the C.P.R. tracks in the north part of the city. The City Engineer is opposed to a level crossing at this point, and the application will raise the whole question and lead to a definite settlement of how much, if any, of the cost of subway, a bridge, or other system of crossing steam railway tracks the city must pay. (Jan., pg. 9.)

The Great Northern Ry. (U.S.) freight and passenger offices in Winnipeg, Man., have been moved from 498 to 477 Main St.

The capital stock of the John Bertram & Sons Co. (Ltd.), Dundas, Ont., has been increased to \$600,000 by a Dominion supplemental charter.

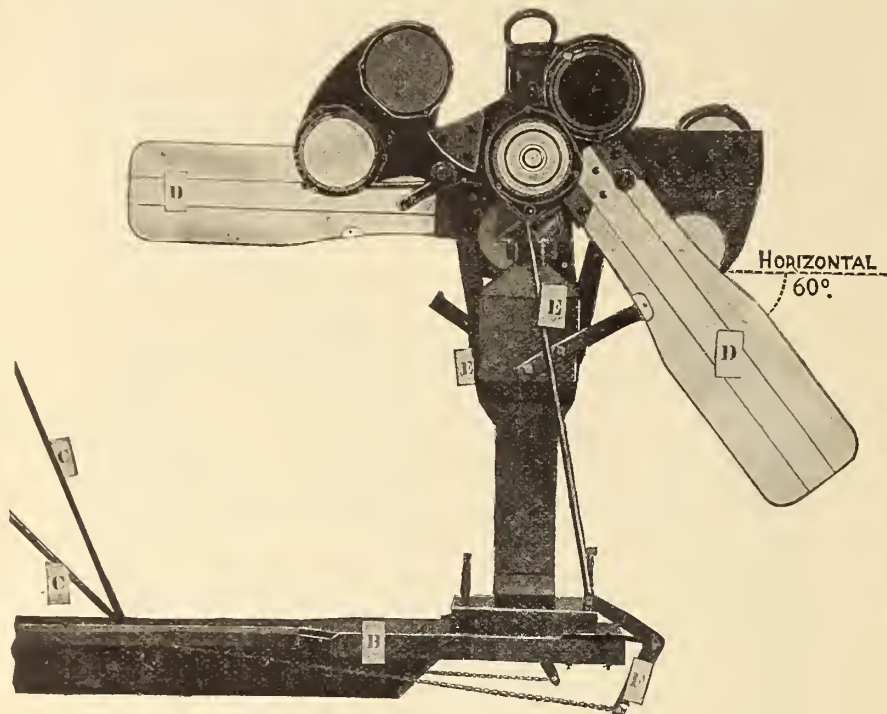
The G.T.R. offered two scholarships in the faculty of applied science at McGill University, Montreal, for competition among the apprentices and other employees of the company under 21 years of age, and to minor sons of employees, at the matriculation examinations, held Sept. 11 to 15. The scholarships are tenable for four years.

The Intercolonial Ry.'s Passenger Department had a unique and telling display at the recent Industrial Exhibition at Toronto, which occupied two rooms in the old art gallery, and for which it was awarded a gold medal. It included a number of large pictures of scenery along the railway, and trophies of game, animals and fish. One of the rooms was artistically treated with rough hemlock bark over the walls, the other being given a rock tunnel effect, and containing a number of tanks with live fish.

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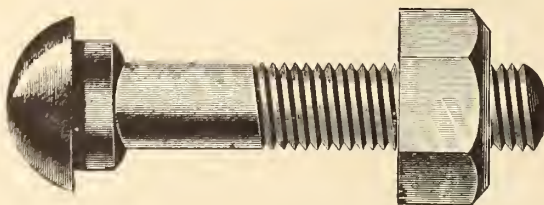
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Railway Equipment Notes.

The York and Carleton Ry. has practically completed the rebuilding of its locomotive.

The New Brunswick Coal and Ry. Co. has purchased a locomotive, snow plow and ballast shovel.

The G.T.R. has added to its rolling stock one standard caboose car constructed at its Port Huron, Mich., shops.

The Intercolonial Ry. has received 19 box cars, 60,000 lbs. capacity, since Aug. 19, to replace rolling stock destroyed.

The Salisbury and Harvey Ry., the Vice-President stated Sept. 12, will shortly be in the market for some new rolling stock.

The Halifax and Southwestern Ry. has received two standard conductors' cabooses from Rhodes, Curry & Co., Amherst, N.S.

The private car Alexandria built by Rhodes Curry & Co., Amherst, N.S., for the use of the Governor-General, has been delivered at Ottawa.

The James Bay Ry. has added four standard cabooses to its rolling stock, from the works of the Crossen Car Manufacturing Co., Cobourg, Ont.

The C.P.R. between Aug. 17 and Sept. 16 received the following rolling stock: 22 locomotives, 2 sleeping, dining and parlor cars, and 585 freight cars.

The Canadian Northern Ry. has placed an order with Rhodes, Curry & Co., Amherst, N.S., for 100 box cars, 60,000 lbs. capacity; for immediate delivery.

Record of Recent Construction of the Baldwin Locomotive Works, Philadelphia, deals with the principles and performances of the balanced compound locomotive.

The Intercolonial Ry. recently asked tenders for 100 box cars, 80,000 lbs. capacity; 200 box cars, 60,000 lbs. capacity; and 130 ballast cars, 80,000 lbs. capacity.

The Temiskaming and Northern Ontario Ry. has ordered 3 first-class passenger cars and one combined baggage and mail car from the Crossen Car Manufacturing Co., Cobourg, Ont.

The Canadian Northern Ry. has recently received the following rolling stock: 150 box cars, 60,000 lbs. capacity, from Rhodes, Curry & Co., Amherst, N.S.; 100 box cars, 60,000 lbs. capacity, from the Crossen Car Manufacturing Co., Cobourg, Ont., and 10 first-class day coaches from the United States.

The dimensions of the five Rodgers ballast, Hart convertible cars which F. H. Hopkins & Co., Montreal, have had built by Rhodes, Curry & Co., Amherst, N.S., for the Winnipeg City Council are: length over end sills 34 ft., width inside 8 ft. 8 in., capacity 40 tons. They are convertible into three uses, viz., for centre hopper ballast distribution, high side swinging door for side dump, and as standard gondola for general service.

The C.P.R. between Aug. 17 and Sept. 16 placed orders for the following additional equipment at its Angus shops: 5 dining cars, 14 sleeping cars, 4 parlor cars, 4 cafe parlor cars, 8 cafe coaches, 4 baggage and sleeping cars, 20 suburban cars, 25 first-class cars, 27 colonist cars, 10 baggage and express cars, 8 baggage and mail cars; 5 fruit express cars, 524 30-ton stock cars, 1,136 30 ton box cars, 653 30-ton flat cars, 500 Rogers ballast cars, 50 freight refrigerators, 5 snow ploughs and 35 40-ton coal cars. An order for 37 standard vans has also been placed at the company's Farnham shops.

The Quebec Central Ry. has placed an order with the Canadian Locomotive Co., Kingston, Ont., for two mogul locomotives, specifications for which are:

WEIGHT. In working order 124,000 lbs; total, 144,000 lbs.

WHEEL BASE OF ENGINE.—Rigid, 15 ft; total, 23 ft., and tender, 49 ft. 8½ in.

DRIVING WHEELS.—Diameter, 56 in.; material, cast iron; diameter and length of driving journals, 9 by 12 ins.

CYLINDERS.—Diameter, 20 in.; stroke, 26 in. BOILER.—Type, radial stayed; no. of tubes, 280, diameter, 2 in.; length, 12½ ft.

BRAKES.—Westinghouse.

TENDER.—Style of tank, level top; capacity, 4,000 Imperial gallons, and 5 tons of coal. Weight loaded, 90,000 lbs. Style of truck, Q.C.R. standard; diameter of wheels, 33 in, kind of wheel, steel tired; diameter and length of journal, 5 by 9 ins.; brake beam, steel.

The Cumberland Ry. and Coal Co. has placed an order with the Locomotive and Machine Co., of Montreal, for a consolidation type locomotive, for Dec. delivery. The locomotive is a duplicate of one at present owned by the company.

CYLINDER.—Simple; diameter, 21 in.; stroke, 28 in. TRACTIVE POWER.—37,500 lbs.

WHEEL BASE.—Driving, 17 ft.; rigid, 17 ft.; total, 25 ft. 3 in.; total engine and tender, 56 ft. 4 in.

WEIGHT.—In working order, 167,500 lbs.; engine and tender, 301,500 lbs.

HEATING SURFACE.—Tubes, 2,566.34 sq. ft., fire-box, 239.00 sq. ft.; total, 2,805.34 sq. ft.; grate area, 34.94 sq. ft.

AXLES.—Driving journals, main, 9½ by 10 in.; others, 9 by 10 in.; engine truck journals, diameter, 6½ by 10 in.; tender, 5 by 9 in.

BOILER.—Type, extension wagon top; outside diameter first ring, 70 ins.; working pressure, 200 lbs.

FIREBOX.—Type, on top of frames; length, 121½ in.; width, 41½ in.; thickness of crown, ¾ in.; tube, ¾ in.; sides, ¾ in.; back, ¾ in.; water space, front, 4 in.; sides, 3½ in.; back, 3½ in.

CROWN STAYING.—Radial. TUBES.—Material, charcoal iron; no. 374; diameter, 2 in. outside; length, 14 ft. 2½ in.; gauge, 12, B.W.G.

BOXES.—Cast Steel.

ENGINE TRUCK.—Radial center bearing.

GRATE.—C. I. rocking to Ry. Co.'s B. P.

TENDER FRAME. Steel channels, 10 in.

TANK.—U-shape, level top; capacity, 6,000 U.S. gallons water, 10 tons coal.

WHEELS.—Driving, 56 in., outside tire, 50 in. centers; material cast steel. Other wheels, cast iron. Engine truck, diameter 30 in.; cast iron center, steel tired. Tender, diameter, 33 in.; cast iron center, steel tired.

BRAKES.—Westinghouse American to driver, Westinghouse for tender.

Freight Rates on Sectional Bookcases.

The Interstate Commerce Commission has given a decision in a case in which complaint was laid against a number of railway companies, including the G.T.R., respecting the rate for sectional or elastic bookcases. The Commissioners held that while there is much to support the view that sectional bookcases might properly be placed in the first class of the official classification, it does not appear upon the proofs presented that one-and-one-half times first-class rates for all bookcases is an unlawful discrimination against the sectional variety, the action of the defendants in fixing the same classification and rates for sectional as for other bookcases does not exceed the limits of their discretion; nor is defendant's one-and-one-half times first-class rate for the transportation of sectional and other book cases shown by the record to be unreasonable. The complaint was dismissed without prejudice to further investigation. The complainant in the case was the Globe Wernicke Co., which in addition to its factories in Cincinnati, Ohio, has one at Stratford, Ont.

The C.P.R. has opened a passenger and freight office in Edmonton, Alta.

The double daily transcontinental service on the C.P.R. is to be continued until the end of Oct., and may be extended to an even later date.

An arbitration board, consisting of W. R. Baker, Assistant to the President, C.P.R.; W. G. Brownlee, Superintendent G.T.R., Toronto, with J. E. Duval, Manager Canadian Car Service Bureau, met in Toronto, Sept. 23, to consider certain accidents, the settlement of which will form a basis for future cases of a like nature.

MAINLY ABOUT PEOPLE.

Senator T. R. Black, a director of Rhodes, Curry & Co., Amherst, N.S., died there Sept. 14, aged 73.

Hon. R. Prefontaine, Minister of Marine, is expected to sail from Montreal, for a trip to Europe Oct. 20.

E. L. Drewry, Winnipeg, has been elected President Winnipeg branch Canadian Manufacturers' Association.

L. Poupore, son of W. J. Poupore, contractor, Montreal, was drowned while canoeing at Morrisburg, Ont., Sept. 1.

J. G. Scott, General Manager Quebec and Lake St. John Ry., spent the greater part of Sept. on a trip to the Pacific coast.

Lady Shaughnessy and her family have returned to Montreal from St. Andrew's, N.B., where they spent the summer.

Mrs. Piers, wife of the Manager C.P.R. steamships, and Miss Piers, returned to Montreal from Great Britain Sept. 10.

J. H. Murray, train despatcher Intercolonial Ry., Sydney, N.S., was married to Miss J. Munroe, of Glace Bay, Sept. 14.

A. R. Creelman, K.C., Chief Solicitor C.P.R., and the Misses Creelman have returned to Montreal from a trip to Europe.

V. G. Curry, son of N. Curry, President Rhodes, Curry & Co., Amherst, N.S., was married there Sept. 14, to Miss M. I. Chapman.

G. H. Ham, C.P.R. head office staff, Montreal, had sufficiently recovered from his recent severe illness to return to his office Sept. 21.

S. N. Parent, Chairman Transcontinental Ry. Commission, has purchased a house on the corner of King and Stewart streets, Ottawa.

Mrs. James Curle, who died at Brockville, Ont., Sept. 11, was mother of W. J. Curle, Superintendent Brockville, Westport and Northwestern Ry.

Thos. Skinner, the London, Eng., director of the C.P.R., arrived in Montreal Aug. 31, and subsequently made a trip of inspection to the Pacific coast.

P. F. Sise, son of E. F. Sise, President of the Bell Telephone Co., was married Sept. 27, to Miss P. E. F. Porteous, daughter of C. E. S. Porteous, of Montreal.

F. H. Alfred, Chief Engineer Pere Marquette Rd., Detroit, Mich., is reported to have resigned to enter the service of the Canadian White Co., Montreal.

Mrs. Naismith, wife of P. L. Naismith, General Manager Alberta Ry. and Irrigation Co., Lethbridge, Alta., was visiting friends in Toronto during Sept.

J. Melville, chief clerk G.T.R. General Passenger and Ticket Agent's office, Montreal, returned to work Sept. 9, after some weeks' absence on account of illness.

F. Grundy, Vice-President and General Manager Quebec Central Ry., returned to Sherbrooke, Que., from England, early in Sept., and Mrs. Grundy returned Sept. 16.

J. Enright, who is now in his twentieth years' service as C.P.R. station agent at Ingersoll, Ont., has moved into new office quarters, which have been nicely fitted up.

G. White, assistant cashier C.P.R., Quebec, who was arrested in Chicago, Ill., Sept. 10, on a charge of having embezzled \$1,000, has been sentenced to two years imprisonment.

W. B. Kingsmill, local solicitor Michigan Central Rd., St. Thomas, Ont., son of Nicol Kingsmill, K.C., Toronto, was married in London, Ont., Sept. 12, to Miss F. Puddicombe.

M. J. Haney, railway and general con-

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tractor, Toronto, has presented the Toronto General Hospital with four large microscopes and other apparatus, of the total value of \$1,200.

Press reports are current to the effect that the name of W. Mackenzie, President Canadian Northern Ry., will be submitted to the King for the honor of knighthood, in the birthday list in Nov.

W. Z. Earle, Manager St. John Ry., St. John, N.B., was married at Rothesay, N.B., Sept. 12, to Miss Isabel Domville, third daughter of Hon. J. Domville. They are spending their honeymoon in England.

J. W. McDermott, formerly in the I.C.R. service at Moncton, N.B., and the Sydney and Louisburg Ry. at Sydney, N.S., has been appointed general yardmaster of the Pennsylvania Rd. freight yards at New York.

M. J. Haney, railway and general contractor, Toronto, has been appointed one of the four members of the Toronto Hospital Trust, to have charge of the construction of a new general hospital for the city.

G. M. Bosworth, Fourth Vice-President C.P.R., was married in London, Eng., Sept. 29, to Miss Alleyne Birchall, daughter of W. D. Birchall, Vice-President of A. T. Wiley & Co., china and crockery importers, etc., Montreal.

G. M. Bosworth, Fourth Vice-President C.P.R., left Montreal for England on the Lake Manitoba, Sept. 14. He was accompanied by Allan Cameron, who goes to London to take a position in the traffic department.

J. McManus, one of the contractors on the Intercolonial Ry. second track work at Windsor Jct., N.S., was hit, but not seriously injured, by a pistol shot fired from a crowd of men, while he was inspecting the work Aug. 30.

W. D. Reid, Vice-President and General Manager Reid Newfoundland Co., has received an autograph photograph and a silver cigar case from Prince Louis of Battenberg, as a souvenir of his visit to Newfoundland.

Sir D. Dixon, managing owner of the Lord Line of steamers, trading to Montreal, and owner of lumber vessels sailing between Belfast, Ireland, and Miramichi ports, has been elected member of the Imperial Parliament for North Belfast.

Mrs. Mackenzie, who died at Hampstead, N.H., Sept. 1, was mother of W. B. Mackenzie, Chief Engineer Government Railways; J. J. Mackenzie, of the I.C.R. audit department, Moncton, N.B., and H. J. Mackenzie, engaged on the Transcontinental Ry. survey.

R. Marpole, General Superintendent Pacific Division, C.P.R., Vancouver, B.C., was married at Victoria Sept. 17, to Miss Anna I. Holmes, daughter of Col. Holmes, D.O.C. Military District no. 11. Mr. and Mrs. Marpole made a tour of Puget Sound on J. Dunsmuir's yacht.

H. P. Dwight, President G.N.W. Telegraph Co., Toronto, has presented a collection of books as a library for the hamlet of Devil's Angle, north of Dwight, Ont. Mr. Dwight had previously presented libraries to a number of the small villages in the Muskoka country.

H. G. Luke was presented with a purse of gold and an address by steamboat men, Sept. 18, on the occasion of his resigning the position of local manager at Toronto for the Niagara, St. Catharines and Toronto Ry., and of the N., St. C. and T. Navigation Co., to go to Winnipeg.

R. Enman, of Moncton, N.B., who was secretary to J. E. Muhlfeld, when he was Superintendent of Motive Power Intercolonial Ry., and who accompanied him when

he went into the Baltimore and Ohio Rd. Co.'s service, has been appointed Secretary to the General Manager B. and O. Ry.

T. P. Coffee, of Toronto, one of the directors of the Nova Scotia Eastern Ry., who had been in London, Eng., for some time in connection with the placing of the company's bonds, died in a hospital there Sept. 14, from typhoid fever. He was also interested in the Kettle Valley lines in British Columbia, and Washington, U.S.A.

Larratt W. Smith, K.C., who died in Toronto, Sept. 18, aged 85, was chairman of the Royal Commission appointed in 1876 to investigate the affairs of the Northern Ry., and was at one time Vice-President of the old Muskoka and Georgian Bay Navigation Co. One of his sons, George, is in the service of the Union Pacific Rd.

C. F. McIsaac was presented recently with a cabinet of silverware by the members of the House of Commons representing Nova Scotian constituencies, and with a combination silver and cut glass dinner service by his late constituents of Antigonish, on his retiring from Parliament to take up his duties as a member of the Transcontinental Ry. Commission.

J. B. Jones, who died in Toronto Aug. 20, as the result of an operation, came to Toronto from England in 1853. He was at one time connected with the G.T.R. freight department, serving successively at Toronto, London, Detroit, and Montreal. He was afterwards agent of the Dominion Line steamships at Toronto, from which position he retired a number of years ago.

C. W. Spencer, Manager of Mackenzie, Mann & Co.'s eastern lines, speaking at the opening of the Ottawa exhibition Sept. 13, said he did not see why two transcontinental railways should not be built at the same time, and if the country continued to develop as it was doing at present another transcontinental line would be necessary. Ottawa, he added, was being developed into a great railway centre.

S. N. Parent, Chairman of the Transcontinental Ry. Commission, has resigned his seat in the Quebec Legislature, and his position as Mayor of Quebec city. He desired to retire from the directorate of the Quebec Bridge and Ry. Co., but the shareholders re-elected him, being advised that there was no objection to his holding the two positions. He was afterwards re-elected President of the company.

J. C. Reed, of the C.P.R. service, Cranbrook, B.C., who was married at Stratford, Ont., Sept. 11, to Miss J. Ballantyne, is a son of W. Reed, Superintendent of Government railways in Jamaica, who was in the G.T.R. service from 1873 to 1883, first as chief machinist at Stratford, and subsequently as Master Mechanic at Montreal and Belleville; and later for some years in the C.P.R. mechanical department at Winnipeg.

W. M. Townsend, who died in London, Eng., Aug. 26, was at one time Secretary of the Northern Ry., at Toronto. On the death of F. W. Cumberland he acted as General Manager until the appointment of S. Barker, and remained with the company until its absorption by the G.T.R. He subsequently went into the railway supply business at Montreal, but retired some years ago, and became Managing Director of the British Columbia Exploration Co., in England, and subsequently General Manager of the Hare Hope Colliery Co., at Fosterley, Durham, Eng., which position he held when he died.

Mrs. G. H. Daniels, wife of the General Passenger Agent of the New York Central Rd., who died Sept. 7, at Lake Placid, N.Y., the family's summer home in the Adirondacks, had been ill for some months. Five weeks before her death her condition became so

serious that Mr. Daniels left for Lake Placid to remain at her bedside constantly. Mrs. Daniels was born at Elgin 55 years ago. She was married to Mr. Daniels in 1870. The funeral was held at Troy, N.Y. Besides Mr. Daniels, two children survive her—J. C. Daniels, a business man of Chicago, and Miss Harriet Daniels, who was at the Lake Placid home when she died.

G. H. Eaton, who has been appointed Assistant Master Car Builder C.P.R. Western Lines, was born in Staffordshire, Eng., June 9, 1860, and entered railway service in 1876, since which his record has been: 1876 to 1879, carpenter, Brockville and Ottawa Ry., at Brockville, Ont.; 1879, carpenter, G.T.R. at Toronto; 1879 to 1884, Credit Valley Ry. (now merged in the C.P.R.), Toronto; 1884 to 1887, C.P.R. yard foreman of repairs and cleaning; 1887 to 1888, C.P.R. shop foreman; 1888 to 1893, C.P.R. car foreman; 1893 to 1897, general car foreman, C.P.R. Hochelaga shops, Montreal; 1897 to Aug., 1905, general car foreman C.P.R. shops at Farnham, Que.

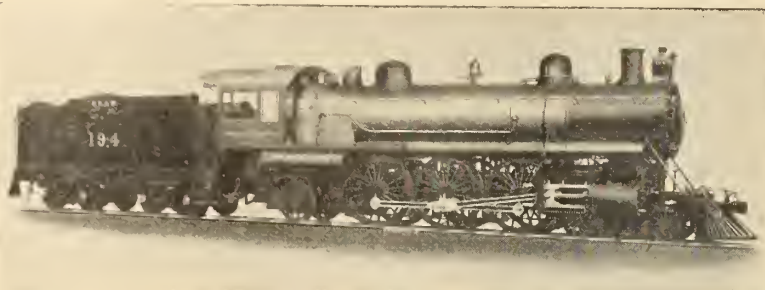
W. H. Fletcher, who has been appointed Locomotive Foreman C.P.R., at Chapleau, Ont., was born at Gloucester, Eng., 1875, coming to Canada in 1882. He entered railway service in the G.T.R. shops at Point Edward, Ont., completing his apprenticeship in that company's shops at Stratford. He entered the C.P.R. service 1898, since which his record has been: 1898 to 1901, fitter Delorimier Avenue shops, Montreal; 1901, relieving locomotive foreman, Naskusp, B.C.; engineer C.P.R. steamers between Vancouver and Hong Kong, and in the Northern Pacific Ry. shops at Tacoma, Wash.; 1901 to 1904, shop foreman, C.P.R., North Bay, Ont.; 1904 to Sept., 1905, locomotive foreman C.P.R., White River, Ont.

Sir T. G. Shaughnessy, President C.P.R., returned to Montreal, Sept. 30, from a trip of inspection over the company's transcontinental line from Montreal, and the various lines in the West. He left Montreal Sept. 9, travelling by special train, and visited all the important points on the company's lines to the coast. The return journey was made by the Crow's Nest Pass route, and via the Minneapolis, St. Paul and Sault Ste. Marie Ry., to Sault Ste. Marie, thence over the C.P.R. branch line to Sudbury, Ont. The President was accompanied by R. B. Angus, C. R. Hosmer, W. D. Matthews, E. B. Osler, M.P., directors; Hon. L. J. Forget, Montreal; and from Winnipeg to the Pacific coast by W. Whyte, Second Vice-President.

W. R. Baker, who has been appointed Assistant to the President C.P.R., was born at York, Eng., 1852, and entered railway service in 1873 as local freight and passenger agent at Ottawa, with the Canada Central Ry., since which he has been consecutively: Feb. to Sept., 1881, Assistant to General Superintendent and Local Treasurer Western Division C.P.R.; Sept., 1881, to May, 1882, Purchasing Agent, same division; May, 1882, to June, 1883, Assistant to General Manager, same road; June, 1883, to Sept., 1892, General Superintendent Manitoba and North-Western Ry.; Sept., 1892, to May, 1900, General Manager, same road; May, 1900, to June, 1901, Executive Agent C.P.R. at Winnipeg; June, 1901 to Jan., 1904, Assistant to 2nd Vice President C.P.R. at Montreal. Jan., 1904, to Sept., 1905, Assistant to Vice President C.P.R., Montreal.

Allan Cameron, who has been appointed to a position in connection with C.P.R. traffic matters in London, Eng., was born March 11, 1861, and entered railway service 1879, since which he has been consecutively to July 31, 1882, messenger and clerk Great Western Ry. of Canada, at Toronto; Aug. 7, 1882, to May 1, 1883, baggage master Northern Ry. of Canada, at Orillia, Ont.; June 1, 1883, to June 1, 1887, clerk local

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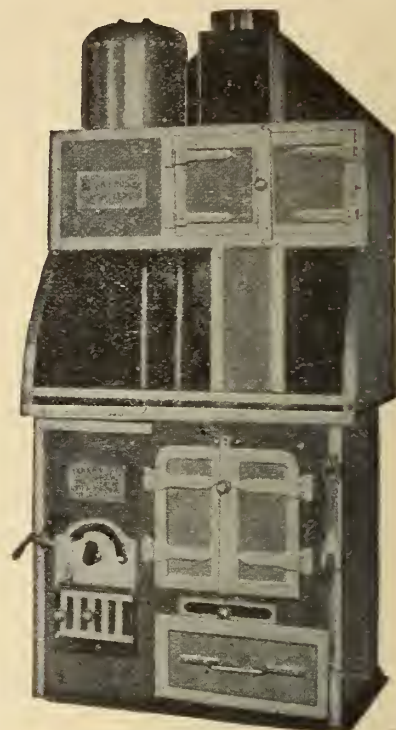
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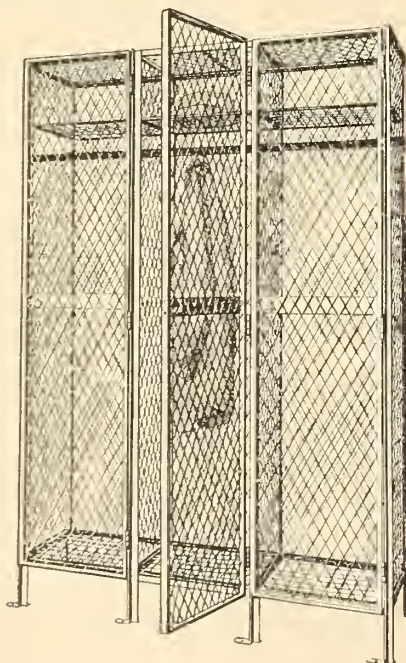
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Arr. Lowell	*7.29 p.m.,	*6.37 a.m.
" Worcester	†9.04 "	*9.19 "
" Boston	*8.15 "	*7.30 "

VIA G.T.RY., AND WHITE RIVER JCT.

Lv. Montreal	*9.01 a.m.,	*8.40 p.m.
Arr. Lowell	*6.11 p.m.,	*7.17 a.m.
" Worcester	†9.04 "	*9.19 "
" Boston	*6.55 "	*8.05 "

VIA G.T.RY., WEST SHORE & ROTTERDAM

Lv. Toronto		*4.10 p.m.
" Niagara Falls		*6.15 "
" Buffalo	*4.30 a.m.,	*7.20 "
Arr. North Adams	*1.05 p.m.,	*5.08 a.m.
" Worcester	*4.55 "	*8.59 "
" Boston	*5.20 "	*9.50 "

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Arr. Portland	†7.45 p.m.,	*8.05 a.m.
" Old Orchard	†8.16 "	*8.42 "

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freight office, C.P.R., at Vancouver, B.C.; June 1, 1887, to Feb., 1890, clerk General Freight and Passenger Department, C.P.R., Vancouver; Feb., 1890, to July 1, 1893, freight and passenger agent, C.P.R., Victoria, B.C.; July 1, 1893, to Sept. 30, 1896, freight and passenger agent, C.P.R., Portland, Ore.; Oct. 1, 1896, to July 1, 1899, District Freight Agent C.P.R.; July 1, 1899, to Dec., 1900, Assistant General Freight Agent, C.P.R., Vancouver; Jan., 1901, to Aug., 1905, in charge of Asiatic business Oregon Rd. and Navigation Co.'s steamers as General Agent at Hong Kong, China.

Henry Barker Lake, who has been appointed Chemical Engineer and Analyst of the C.P.R. Western Lines at Winnipeg, was born in Derbyshire, Eng., in 1877; and educated at Peoples College, Nottingham, finishing with three years' science course, specializing in chemistry. His record is as follows; 1896 to 1898, pupil to consulting engineer, and continued studies at Birmingham College, taking 1st class honors in analytical chemistry; 1898 to 1899, Inspector of locomotive and railway materials for the Great Indian Peninsular and Indian Midland Ry. Cos. under Sir George Bruce; 1899 to 1901, further experience in the drawing office and works of Sir James Kitson, locomotive builder, Leeds, Eng., and as outside inspector; 1901 to 1902, chemist and tester to the Sheffield Testing Works, including further course at the University in micrographical analysis and pyrometry; 1902, appointed chemical engineer to the Actien Gesellschaft fur Kolendestillation en bulurke, Gelsenkirchen, Prussia, but accepted interest in previous employer's business and practised as consulting engineering chemist for three years, including expert evidence in law cases, resigned Jan., 1905; elected associate member of the Institute of Mechanical Engineers of London, 1904; June, 1905, appointed Chemical Engineer and Analyst C.P.R. Western Lines.

TRANSPORTATION APPOINTMENTS.

Algoma Central and Hudson Bay Ry.—R. W. Seelye has been appointed Superintendent of the Michipicoten branch, vice C. Shields, resigned.

Canadian Pacific Ry.—The position of Assistant to the Vice-President, vacant by the appointment of W. R. Baker as Assistant to the President, had not been filled up to the time of writing (Sept. 29).

The position of General Superintendent of Transportation, Eastern Lines, vacant by the resignation of C. W. Spencer, has not been filled. The work of the office is being carried on by the staff under the direction of Vice-President McNicoll.

J. Burns has been appointed General Locomotive Foreman at North Bay, Ont., succeeding T. Bate, appointed Locomotive Foreman at Schreiber, Ont. W. H. Fletcher has been appointed Locomotive Foreman at Chapleau, Ont., succeeding J. Burns, and is succeeded at White River, Ont., by R. Johnson, formerly at Schreiber.

W. Toole, C.P.R. District Land Agent, Calgary, Alta., has not been appointed Commissioner of Irrigated Lands as stated in recent press reports. We are informed that there is no change in his position except that in addition to his other duties as District Land Agent the sale of irrigated lands is included.

Grand Trunk Pacific Ry.—D'Arcy R. Tate, heretofore of the law firm of Carscallen and Cahill, Hamilton, Ont., has been appointed Assistant Solicitor G.T.P.R. at Montreal.

A. Glasco is reported to have been appointed bridge engineer.

Grand Trunk Ry.—Thos. Rodger, heretofore chief operator G.N.W. Telegraph Co.,

Montreal, has been appointed Inspector of Telegraphs and Telephones, G.T.R., with supervision over all lines east of Detroit and St. Clair Rivers, reporting to the Superintendent of Telegraphs. Office, Montreal.

J. Luscombe has been appointed train dispatcher at London, Ont., succeeding J. P. McMullen, resigned.

The following agents have been appointed Thornbury, Ont., A. Roach; Limehouse, Ont., G. T. Coe; Wanstead, Ont., G. Van-Horne; Hickson, Ont., J. T. Clancy.

Intercolonial Ry.—W. F. Taylor has been appointed General Storekeeper instead of C. R. Palmer, who has been assigned other duties. An unconfirmed Moncton dispatch says Mr. Palmer is to be Inspector of Stationery.

MacKenzie, Mann & Co.'s Eastern Lines.—C. W. Spencer entered on his duties as Manager of the James Bay Ry., the Great Northern Ry. of Canada, the Halifax and Southwestern Ry., and the Inverness Ry. and Coal Co.'s line on Sept. 1, with offices at 286 St. James St., Montreal. No circular announcing the appointment had been issued up to the time of writing (Sept. 29).

Niagara, St. Catharines and Toronto Ry., and N., St. C and T. Navigation Co.—J. R. Wilson, heretofore chief clerk in the Toronto local manager's office, has been appointed local manager, succeeding H. G. Luke, resigned.

Pere Marquette Rd.—J. P. McMullen, heretofore train dispatcher G.T.R., London, Ont., has been appointed train dispatcher P.M. R.

Turbine Steamship Co.—F. H. Baker, in charge of Toronto business for the steamer Argyle, has been appointed Toronto agent for the Turbinia for the balance of the season, succeeding J. Burke, resigned.

The Railroad Gazette, New York, had the following in its issue of Sept. 15:

CANADIAN PACIFIC.—J. W. Leonard, Manager of Construction, has been appointed General Superintendent of Transportation of the Eastern lines, succeeding C. W. Spencer, resigned.

We were officially advised Sept. 23 that no such appointment had been made.

The Trades and Labor Congress meeting at Montreal, Sept. 14, passed a resolution asking the Dominion Government for an interpretation of the decision given by Justice Anglin in the Pere Marquette Rd. case, under the Alien Labor Act. An appeal under the decision will be heard by the Privy Council in London, Eng., in Feb., 1906.

The question of the appointment of a successor to J. E. Duval, Chief Inspector, has not been definitely decided by the Board of Railway Commissioners, and it is not likely that anything will be done until after the Commissioners return from the West. Press reports state that an Inspector will be appointed to investigate accidents in the West, with office at Winnipeg. The question of an appointment of an Inspector of Rolling Stock has not been under the consideration of the Board.

The Department of Marine is working out details of a plan for the improvement of the lighthouses on the Atlantic seaboard, and in the St. Lawrence Gulf and River. The old-fashioned reflecting lamps, fixed and revolving, in use at the present time, and burning coal oil, will be replaced with petroleum vapor lamps; other improvements will be made at the several stations. The first lighthouse to be fitted with the petroleum vapor lamp will be that at Gannet Rock, and the next will be that at the confluence of the St. Martin and the St. Lawrence rivers. The plans also provide for the installation of a new and powerful hyper-radial light at Cape Race, Nfld.

Canadian Ticket Agents' Association.

Secretary De la Hooke has issued his usual second circular to members of the Association respecting the annual meeting to be held in Portland, Me., in October. The party will assemble in Montreal, leaving the Bonaventure Station there on Saturday, Oct. 14, at 8 a.m., by special G.T.R. train to reach Portland about 6 p.m. Portland will be left on the return trip on Thursday morning, Oct. 19, by special train over the Maine Central, Boston and Maine and C.P.R. to Montreal.

The Portland Express says that a most hospitable welcome awaits the party. Freight Agent R. W. Scott, of the G.T.R., formerly of London, Ont., is acting as Secretary De la Hooke's representative at Portland, in consultation with a committee of local transportation men, including President Goding, of the Board of Trade; F. C. Boothby, G.P.A., Maine Central Rd.; J. F. Liscomb, Eastern Steamship Co.; G. F. West, President Harpswell Steamboat Co.; H. C. Clay, Agent Maine S. S. Co.; H. A. Snow, Union Station Ticket Agent, and J. Lawlor, G.T.R. Ticket Agent. On the arrival of the G.T.R. special at Portland, the Portland Rd. Co., which will extend its courtesies to the visitors during their stay, will have special cars waiting to take them from the station to the New Falmouth Hotel, the Chase Transfer Co. transferring the baggage complimentary. The party will have Saturday evening and Sunday at their own disposal. On Monday, Oct. 16, at 9.30 a.m., the Mayor will officially welcome them at the city hall, after which the annual meeting will be held at the hotel, where the annual dinner will take place in the evening. On Tuesday, Oct. 17, the hotel will be left by special electric cars at 9.30 a.m., for the Casco Bay Steamboat Co.'s wharf, where one of the steamers of the line will be boarded for a trip which is expected to last until about 4 p.m. It is likely that a monster clam bake will be given on one of the islands in the bay. On Wednesday, Oct. 18, the Portland Rd. Co. will take the party on special cars to Cape Cottage, Riverton and about the city, and in the afternoon to Old Orchard. There will probably be a theatre party on one evening of the trip.

Grand Trunk Pacific Railway.

At the annual meeting in Montreal, Sept. 19, Sir W. L. Young, G. Von Chauvin and A. Hubbard, of London, Eng., were elected directors in place of Lord Welby, J. A. Chut-ton-Brock and the late Jos. Price. The officers and directors for the current year are: President, C. M. Hays; Vice-President and General Manager, F. W. Morse; Second Vice-President, W. Wainwright; other directors: Sir C. Rivers Wilson, A. W. Smithers, Sir W. L. Young, G. Von Chauvin, A. Hubbard, Hon. G. A. Cox, J. R. Booth, E. R. Wood, E. H. Fitzhugh, W. H. Biggar, H. A. Allan and E. B. Greenshields. Secretary, H. Phillips; Treasurer, F. Scott; General Auditor, H. W. Walker.

In regard to construction work, F. W. Morse, Vice-President and General Manager, stated on his return to Montreal recently, from Winnipeg, that no rails would be laid this year, but it was hoped to commence in the spring. Nothing had been decided about the terminals at Winnipeg, the negotiations in regard to the same were proceeding, but there was as yet nothing to announce. In connection with the line Mr. Morse stated that it was proposed to operate hotels at various points as the C.P.R. was doing, and it is stated that hotels will be erected at Montreal, Ottawa, Winnipeg and at the Pacific terminals. The hotel at Ottawa is likely to be constructed in connection with the projected new station.

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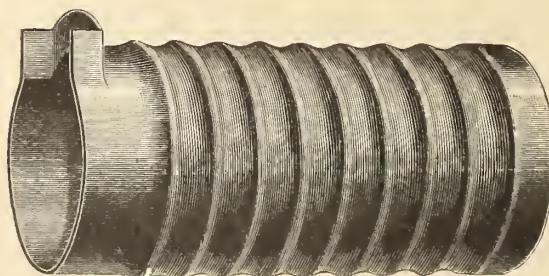
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An order for 30,000 tons of steel rails for spring delivery has been placed in Scotland.

Daily press reports which recently stated that the contract for building the entire line of the G.T. Pacific Ry. had been let to the National Construction Co. were incorrect. We are advised by an officer that the organization of the construction company was a formality. The G.T.R. Co., which has guaranteed the bonds of the Lake Superior branch, has no power to build the same, and therefore a subsidiary company has been created with the necessary powers. The whole of the stock in the construction company, except such as is necessary to qualify the directors, who are officers of the G.T.R., is held by the G.T.R. Co. It is further said that the construction company takes the contract for building the branch for the amount of bonds which the G.T.R. Co. is guaranteeing.

The first sod of the Lake Superior Branch was turned by Sir Wilfrid Laurier, at Fort William, Ont., Sept. 11. The site of the ceremony was near where the first sod of the C.P.R. was turned in June, 1875. The Premier was presented with a silver spade as a souvenir of the occasion. The Lake Superior branch, according to the latest surveys, is expected to be 205 miles in length, some 15 miles shorter than was originally expected would have been possible. The line will start from the Mission property at Fort William, and run in a northwesterly direction through the townships of Vreeburg, McIntyre, Oliver and Ware, practically paralleling the C.P.R. Shortly after leaving Kaministiquia the line will cross Dog River, passing near Linko station, and will join the main transcontinental line near Minnetakie Lake, and Abraham's Lake. Tenders for the construction of the branch were opened at Montreal, Sept. 15, but no contract had been announced up to Sept. 29.

The C.P.R. in its protest against the approval of the route of the main line from Portage la Prairie to the Touchwood Hills, set out that the route is a violation of the act of Parliament constituting the new company; and that the location so far decided upon is contrary to the policy of the Government as declared in Parliament. The protest was heard by the Railway Commissioners, Sept. 4, and the chairman in giving judgment said it did not seem to him that any question of law was involved; the company had obtained a special act authorizing it to build a line within certain points. The Minister had approved of the plans, and after this there could be no alteration of the route except by the Minister himself. The position of the board was not that of one who had the right to say whether the line should be built or not. The Minister having approved of the plans, the board had no right to say they should not be carried out. If in no way objectionable on engineering grounds, and no public or private interests were affected, there was no reason why the order applied for should not be granted. There was not a shadow of doubt in his mind that the company had authority to build upon the line chosen, and that the Minister had authority to sanction the plans. The clause creating a limitation as to the route in the Northwest Territories did not bind the Government to anything. The whole route was practically left open, as it would be in the case of any other railway under the general railway act, and which had no limitation as to route. There was nothing in the question of law which would justify a reference to the Supreme Court. The usual order would issue as to approval of plans.

The route is practically an air line from Portage la Prairie for about 84 miles, and of that distance 45 miles is a tangent. It closely parallels the C.P.R. main transcontinental line as far as McGregor, at which point the C.P.R. deflects southwesterly. The new line continues for a distance of 12 miles to Wheat-

lands, and then proceeds northwesterly via Crandall, entering the Assiniboine Valley south of Beulah, crossing Bird Tail Creek near its mouth, and continuing up the valley of the Assiniboine River to a short distance above the confluence of the Qu'Appelle River, where it crosses the Assiniboine River, and then running along the valley of the Qu'Appelle River practically as far as township 18, range 30, west of the first principal meridian. The line then runs north-west about 85 miles, to township 26, range 13, west of the second principal meridian, within a short distance of the Hudson's Bay Co.'s Touchwood Hills post. From Portage la Prairie it is fairly light prairie work until Wheatlands is passed, and then the work becomes heavier, especially near the crossings of the Arrow River, Bird Tail Creek, Assiniboine River, and in the valley of the Assiniboine and Qu'Appelle Rivers. The contract let to Macdonald, McMillan & Co. comprises grading and completing the line ready for tracklaying, with the exception of the steel bridge work. The contracts for the steel bridge work will be let direct by the company, which will do the tracklaying, and ballasting, and possibly the putting up of the station buildings also. There will be two division points on this 275 miles of line. The principal bridges will be required at the crossings of the Little Saskatchewan River, Arrow River, Bird Tail Creek, Assiniboine River, and Cut Arm Creek. A sub-contract has been let to G. H. Strevel, Winnipeg, for 36 miles of grading. It is expected to grade about 100 miles this season. The work will be in charge of E. R. McNeil, the company's division engineer at Winnipeg. It is not intended to let any further contracts for work on the main line this year, but it is hoped to have the line to Edmonton under contract early next season. Plans for the portion of the line from the end of the 275 miles from Portage la Prairie to the vicinity of Touchwood Hills, have been filed at Ottawa.

The B.C. Government has entered into an arrangement with the G.T.P. Ry. Co. for the establishment of the Pacific terminals on Kaien Island. The Government has agreed to sell 10,000 acres in the vicinity of Tucks Inlet at \$1 an acre, and to retain one-quarter interest in the townsite. In the event of the agreement not being carried out, the land is to revert to the Government.

Canadian Northern Ry. Construction.

Winnipeg Hotel and Station.—W. Mackenzie, President, recently stated in Winnipeg that the company had prepared plans for a building to comprise hotel, station and general office building to cost about \$2,500,000. He also stated that negotiations were pending with other companies to join in the enterprise, but nothing definite has been decided.

Winnipeg Terminals.—At the sitting of the Railway Commissioners at Winnipeg, Sept. 14, the company made application to expropriate a large area of land, and to close up nine streets at Fort Rouge for terminal purposes.

Oak Point Branch.—A contract has been let to Jas. Cowan for the grading of a piece of line to connect the branch to Oak Point, with the main line at St. Charles, Man. The line will start at the point where the branch intersects the C.P.R., and will run through St. James, just outside the city limits, crossing over the Assiniboine River, and through St. Charles to the C.N.R. main line, connection being made therewith a short distance west of Fort Whyte.

Hartney to Regina. The construction of the line from Hartney to the westerly boundary of the Province, is to be completed this season, and contractors are pushing ahead with the work. It is stated that the inten-

tion of the company is to extend the line to Regina, Sask.

Grand View Extension.—Grading has been completed into Edmonton and to a junction with the short piece of line constructed by the Edmonton, Yukon and Pacific Ry., from Strathcona into Edmonton. The tracklaying was expected to be completed by the end of Sept.

G.T.R. Betterments, Construction, Etc.

Midland Branch. In connection with an application before the Railway Commissioners recently, F. H. McGuigan, Manager, stated that it was the intention of the company to double track the Midland branch in the near future.

Queen Street Subway, Toronto.—A proposal has been under consideration for the construction of a subway under the tracks at Queen St. East, but F. H. McGuigan, Manager, informed the Mayor that the company was preparing plans for improvements which would render the construction of a subway unnecessary.

Brantford Improvements.—The big improvements in the vicinity of Brantford, Ont., have been so far completed that it was arranged to divert the main line trains through the city Oct. 1. A public demonstration to celebrate the event was arranged for Sept. 30.

Guelph Freight Yards.—The residents of Guelph, Ont., have signed, in large numbers, a petition to the City Council objecting to the sale of the fair grounds for use as freight yards. The City Council, Sept. 12, declined the invitation of the company to inspect the freight yards at Hamilton, Brantford and other points.

Improvements at Norwich.—The Brantford and Port Burwell branch, and the Stratford-Port Dover line cross at Norwich, Ont., and the company is asking the village to grant \$10,000 and to provide a right of way to deflect the lines, so as to provide a new and central station.

Komoka-Kingscourt Second Track.—The steel has been laid on the second track constructed between Komoka and Kingscourt Jct., Ont., and the ballasting is nearly completed.

New Station at London.—The company's plans for the improvement of its station and terminal facilities at London, Ont., are taking shape, and it is reported that they will involve the expenditure of about \$2,000,000. The plans, it is said, include the building of a new passenger station and freight sheds in the city, and a passenger station at East London, with other improvements.

The Transportation Commission is making a tour in Western Canada, sittings having been held at Winnipeg, Man.; Regina, Sask.; Calgary, Edmonton, Alta.; Vancouver, Victoria, New Westminster and Nelson, B.C. The sitting at Victoria was fixed for Sept. 28, and the Commissioners' arrangements were to return east by the Crow's Nest Pass route.

At a special meeting of the Central Passenger Association, at Chicago, Ill., Sept. 15, an effort was made to secure an agreement to pool all the steamship business between the differential lines including the Michigan Central Rd. The G.T.R. opposed the suggestion on the ground that the M.C.R. was not entitled to any of this business unless it would say over what routes and under what conditions it could carry the traffic. The G.T.R. also gave notice that if the M.C.R. put on a new through car service between Chicago and New York over a differential line from Buffalo, an application would be made for a rehearing of the differential cases recently decided in favor of the M.C.R.

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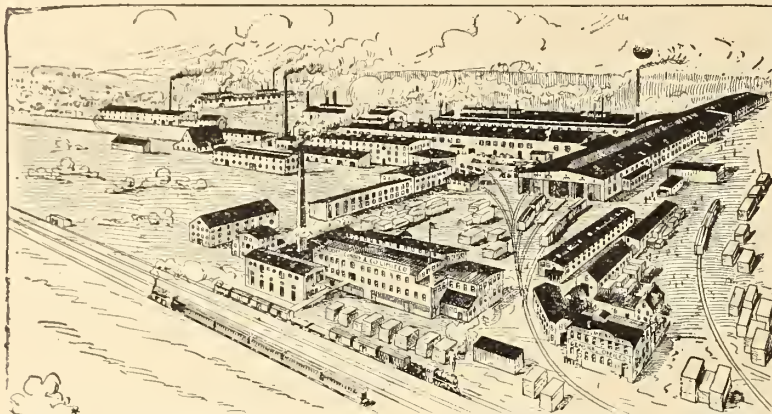
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(Bristol and Antwerp.)

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Canadian Passenger Agent.

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C.P.R. Betterments, Construction, Etc.

Quebec Jet. to Mattawamkeag.—Reports from Houlton, Me., state that engineers are in the field making a survey between Debec Jet. and Mattawamkeag, Me., in behalf of the C.P.R.

Place Viger Yard Improvements.—The C.P.R. and the City of Montreal will apply next session of the Quebec Legislature for an act confirming an agreement entered into between them, dated June 30, 1905, in connection with the leasing of certain streets for 99 years. The Montreal Brewing Co. has entered an action against the city and the C.P.R. to have the agreement in question set aside.

Kingston and Pembroke Ry.—The car shops at Kingston, Ont., were destroyed by fire, Sept. 12, the extent of the damage being placed at \$50,000. The shops have been unused for some time, but contained a lot of machinery, a locomotive, some box cars, patterns, etc.

Land Purchases in Toronto.—The company has purchased from the Polson Iron Works, four water lots on the Esplanade, Toronto. The company undertakes to keep the lots free of buildings until May, 1906, and in the event of Lake St. being closed, agrees to use its best endeavors to have a street opened.

Toronto-Owen Sound Branch.—With the exception of a few miles north of Orangeville, the entire line from Toronto to Owen Sound, Ont., has been relaid with 72-lb. rails. The old 60-lb. rails north of Orangeville will be taken up and replaced with 72-lb. steel next spring.

Branch to Stratford, Ont.—J. W. Leonard, Manager of Construction, Ontario Lines, wrote the Mayor of Stratford, on Sept. 6, that it had been decided not to ask for a bonus, and that should the company eventually come to the conclusion to construct a line, the city would probably be asked to grant such right of way and station grounds as were owned or controlled by the corporation. The by-law which was about to be submitted to a vote, to grant a \$30,000 bonus for purchase of right of way, has been withdrawn.

Toronto-Sudbury Line.—Grading is well forward, and tracklaying is expected to be commenced early in Oct.

Branch to Hutton.—Plans have been approved by the Railway Commissioners for the construction of a branch line from Sudbury to Hutton, Ont., 30.1 miles. We are advised that this is a mining spur projected to run north from Sudbury to Hutton township, which was located about two years ago. Nothing was done in the way of construction at the time, and nothing has been decided in regard to it.

Fort William-Winnipeg Second Track.—A contract has been let by the general contractors for this work, to Geo. McKenzie, for a portion of the distance.

Winnipeg Hotel.—Good progress has been made upon the building of the company's hotel, and it is expected to have it completed for opening by June, 1906.

Carberry Surveys.—A press report states that a survey party has been placed in the field at Austin, Man., to run a line through that district parallel with the G.T. Pacific Ry., which is located about eight miles north of Carberry.

The Pheasant Hills Branch of the C.P.R. was opened for traffic Sept. 25, on the extension of 55 miles from Lipton to Strassburg. The branch starts from the main line at Kirkella, Man., and is 202 miles in length to Strassburg, Sask.

Branch to Macleod.—An agreement was signed Sept. 25, between the company and

the town of McLeod, Alta., for the construction of a line into the town.

Wetaskiwin Branch.—The first 25 miles of the branch easterly from Wetaskiwin, Alta., has been completed and passed by the Government Inspector. The second 25 miles was expected to be completed and ready for operation Sept. 30. A contract has been let to J. D. McArthur for grading a further 50 miles easterly. It is intended to carry the line easterly to a junction with the Manitoba and North-Western Ry., which now runs to Shebo, Sask. The branch will cross the Qu'Appelle, Long Lake and Saskatchewan Ry. at Saskatoon, Sask., and J. D. McArthur has a contract for grading 50 miles westerly from this point, to meet the 50 miles he is grading easterly.

Victoria Hotel.—The tourist hotel which the company is erecting at Victoria, B.C., is expected to be completed early in 1907.

The Railway Commissioners in the West.

For the convenience of all parties concerned the Board of Railway Commissioners arranged for the holding of a series of sittings at central points in Western Canada. A. C. Killam, K.C., Chief Commissioner, and Jas. Mills, Commissioner, formed the court, and they were accompanied by G. A. Mountain, Chief Engineer; J. Hardwell, Chief Traffic Officer and Assistant Secretary Primeau; J. A. Marlow, Transportation Officer of the Canadian Manufacturers' Association, Toronto, also went west to attend the sittings of the Commissioners in behalf of the Association. The principal cases to come before the Commission were a number heard in 1904 by Hon. A. G. Blair and Commissioner Mills, but in which judgment had not been delivered when Mr. Blair resigned the chairmanship. The first sittings were held at Fort William, Ont., Sept. 7; the Commissioners moving to Winnipeg on the following day. The sittings at Winnipeg opened Sept. 11, when among the matters considered were the crossing of the Canadian Northern Ry. line in Fort Rouge; the question of three level crossings for the Canadian Northern Ry. at St. Boniface; the consideration of the question governing mixed car loads; the crossing of the C.P.R. by the Canadian Northern Ry. at Neepawa, Man.; freight interchange between C.P.R. and C.N.R. in Winnipeg; as well as a number of other and more routine matters. The work planned for the meeting of the Commissioners at Winnipeg was not completed within the time allotted and it was arranged to hold further sittings on the return of the Commissioners from the Pacific Coast. The Commissioners visited a number of points in Manitoba for inspection purposes, and held sittings at several points, including Calgary and Vancouver.

Canada Atlantic Railway Transfer.

At the annual meeting of shareholders, Sept. 26, the board was reorganized as follows:—President, C. M. Hays; Vice-President, E. H. Fitzhugh; Secretary-Treasurer, F. Scott; other directors, F. H. McGuigan, J. Hobson, W. H. Biggar, and J. W. Loud.

The following circular was issued Sept. 26, by C. M. Hays, Second Vice-President and General Manager, G.T.R.: Effective at 12 o'clock midnight, Sept. 30, the G.T.R. Co. will take over the management and operation of the Canada Atlantic Ry. and branches and the Canada Atlantic Transit Co., and the officers and employees of the companies named will be governed accordingly. The jurisdiction of the following general officers is hereby extended over the property of the companies named in their respective departments:—C. M. Hays, Second Vice-President and General

Manager; E. H. Fitzhugh, Third Vice-President; F. H. McGuigan, Fourth Vice-President; W. Wainwright, General Assistant and Comptroller; R. S. Logan, Assistant to Second Vice-President; W. H. Biggar, K.C., General Solicitor; M. K. Cowan, Assistant Solicitor; J. W. Loud, Freight Traffic Manager; J. Pullen, Assistant Freight Traffic Manager; J. E. Dalrymple, General Freight Agent; A. E. Rosevear, Freight Claim Agent; A. F. Read, Foreign Freight Agent; W. E. Davis, Passenger Traffic Manager; G. T. Bell, General Passenger and Ticket Agent; H. G. Elliott, Assistant General Passenger and Ticket Agent; J. E. Quick, General Baggage Agent; H. R. Charlton, Advertising Agent; J. Hobson, Chief Engineer; W. D. Robb, Superintendent of Motive Power; W. McWood, Superintendent of Car Department; M. C. Sturtevant, Car Service Agent; W. W. Ashald, Superintendent of Telegraphs; J. A. Hutchison, M.D., Chief Medical Officer; A. Butze, General Purchasing Agent; F. Scott, Treasurer; H. W. Walker, General Auditor; N. J. Power, Auditor of Disbursements; G. B. Filgiano, Auditor of Passenger Accounts; W. Clark, Auditor of Freight Accounts; W. H. Rosevear, General Car Accountant; E. Donald, Tax and Land Agent.

The following circular was issued Sept. 30:—The lines and branches heretofore known as the Canada Atlantic Ry. will, from this date, be operated as the Ottawa Division of the G.T.R. System, and will be divided into the following named districts:

	MILES.
DISTRICT 30: Ottawa to Boundry Line.....	134.7
Boundary Line to Alburgh Junction.....	3.1
Glen Robertson to Hawkesbury.....	21.0
South Indian to Rockland.....	16.4
Total.....	175.2
DISTRICT 31: Ottawa to Madawaska.....	130.2
Golden Lake to Pembroke.....	20.9
Total.....	151.1
DISTRICT 32: Madawaska to Depot Harbor.....	133.6

E. J. Chamberlin, heretofore General Manager of the C.A.R. and J. W. Smith, General Assistant, have retired from the service to go into other business.

In order that the organization and methods of operating the new Ottawa Division (formerly Canada Atlantic Ry.) may conform to those in effect on all other divisions of the system, the position of General Superintendent has been abolished and M. Donaldson, heretofore General Superintendent of the Canada Atlantic Ry. has been appointed Superintendent, in charge of all matters pertaining to Transportation and Maintenance of Way, office at Ottawa, Ont. Officers in charge of these departments will hereafter report to and receive instructions from Mr. Donaldson.

W. P. Hinton, heretofore General Freight and Passenger Agent C.A.R. has been appointed General Agent, Passenger Department, G.T.R. with office at Ottawa, to have charge of immigration and other trans Atlantic passenger traffic and to perform such other duties in connection with the General Passenger Department as may be assigned him.

E. R. Bremner, heretofore Assistant General Freight Agent C.A.R. has been appointed Division Freight Agent in charge of the G.T.R. line from St. Polycarpe, Que., to Depot Harbor, Ont., inclusive, also Hawkesbury, Rockland and Pembroke Branches, office at Ottawa.

The Minister of Railways completed his inspection of the Intercolonial Ry., Sept. 7. He was accompanied by the Deputy Minister, M. J. Butler, who has made a report on the position of the line. On Sept. 13, the Minister held a private meeting with the General Manager and the heads of departments, and on Sept. 14, met the representative of the locomotive engineers, firemen, conductors and brakemen at Moncton, N.B.

BIG GAME

MOOSE, CARIBOU, DEER

OPEN SEASON:

QUEBEC—Sept. 1st to Dec. 31st.

NEW BRUNSWICK—Sept. 15th to Nov. 30th.

NOVA SCOTIA—(Moose only)—Oct. 1st to Jan. 1st.

THE **INTERCOLONIAL RAILWAY** IS THE
DIRECT ROUTE TO THIS TERRITORY

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Moncton, N.B., for Descriptive Pamphlets.

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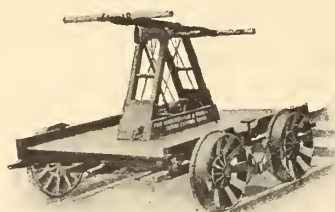


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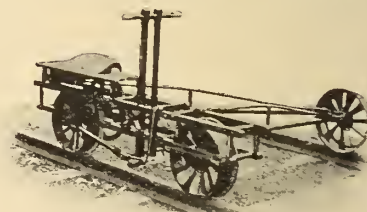
Track Jacks, Cars, Barrows, Crowbars,
Levels, Gauges, Picks, Shovels, Rail-
benders, Wells Lights, Plows, etc., etc.

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OF ALL KINDS

MANGANESE

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For wearing Parts, Insuring Great Hardness and Durability

INTERLOCKING PLANTS

WORKS AND OFFICE: CANAL BANK, PT. ST. CHARLES, MONTREAL

Decision re Ex-Lake Grain Rates.

Following is a copy of a letter addressed to the Board of Railway Commissioners by the American Cereal Co., dated at Chicago, Ill., April 25:—"This company has mills in Peterborough, Ont., largely used for the manufacture of cereal products for export. In selling to the foreign trade, we have to meet the competition of mills located at the American seaboard, said mills being able to secure supplies of what is known as ex-lake grain on the basis of either lake and canal or lake and rail freight rates. For example, freight rates on export grain from Georgian Bay ports to Montreal during the past season of navigation, as we have learned, ranged from 2½ to 4c. per bush. of 60 lbs., being equal to 4.166c. and 6.666c. per 100 lbs.; whereas, the rate charged us on ex-lake grain milled in Peterborough was 3c. per 100 lbs. Midland to Peterborough, and 9½c. per 100 lbs. Midland to Montreal, making the rate paid by us 12½c. per 100 lbs.

"In addition to this, we have to meet the competition of mills in Liverpool and other foreign seaports, which are able to secure a supply of Canadian grain at an ocean rate, averaging from 2 to 5c. per 100 lbs. lower on the grain than on the manufactured product. To overcome the latter, Canadian mills have a prior selection of the grain, and are able to deliver at any foreign seaport; whereas, the foreign mills, on account of their high inland freight rates, are practically confined to their own markets.

"This company has already taken up the inland discrimination mentioned with the management of both the G.T. and C. P. Railways, which have declined to put the product rate for export on the same basis as the grain, stating that they are able to carry ex-lake grain in trainloads from Georgian Bay to Montreal at a lower cost than they can afford to make on grain milled in Ontario. This, to a considerable extent, may apply on grain milled by small country mills, but in our judgment does not apply to the cereal products turned out by this company in Peterborough. For instance, the country mills ship the product in sacks, not materially increasing the weight; whereas we, in the case of oat products, ship over two-thirds of the output in cases, each case containing thirty-six 2 lb. packages, making 72 lbs., the pulp-board, wrappers and case aggregating 18 lbs. per case. This means that the railways collect freight on said 18 lbs. of material manufactured in Canada and brought in by the roads from different parts of the country. In other words, the railroads collect freight on 18 lbs. in and 18 lbs. out, in addition to the 72 lbs. of grain or product, while on the product shipped in sacks they would only collect freight on the 72 lbs. In addition to this, it requires about ten times the help to put the output into packages that it does to put same into barrels or sacks.

"To substantiate our position, we are ready to submit published railway tariffs, showing you that competition now forces the Canadian roads to carry cereal products manufactured in the U.S. through Canada, for export, at rates netting them as little per ton per mile as the ex-lake rates mentioned. In addition to this, if an opportunity is given us, we believe we can satisfy the Commissioners that it is clearly to the interests of the railways and the country that all the cereals possible be manufactured in Canada instead of in foreign countries.

"What we ask for is that the Railway Commissioners establish a basis of rates on ex-lake grain, originating in Chicago, Milwaukee, Duluth, Ft. William, or Pt. Arthur, by way of the Georgian Bay, to be milled in Peterborough, for shipment via the ports of Montreal, Portland, Boston, or West St. John, that will not exceed the grain rate.

"Our Treasurer, Mr. Stuart, and Mr

Richards, our Traffic Manager, will be pleased to meet your Commission, and representatives of the roads at the earliest date you may be able to name, prepared to go into this matter in detail."

On Sept. 6, the Secretary of the Board of Railway Commissioners wrote the American Cereal Co. that the Board had considered the application and was of opinion that no change should be directed to be made except such as would be involved by the reduction in export rates recently directed by the Board, as published on page 456 of this issue.

The Alleged Vessel-Owners' Combine.

A. A. Wright, of Toronto, Manager of the str. Tadousac, said, in an interview in the Toronto Globe, Sept. 27:—"I notice a press report from Winnipeg expressing shippers' dissatisfaction over alleged combine of vessel-owners. I take exception to the expression, as the term is incorrect. The only agreement is one not to carry below reasonable cost of transportation, considering the season of the year and the delay boats get in loading and unloading. The shippers forced the vesselmen to this to save them from bankruptcy, as in addition to the low rates, shippers insist on vessels loading at as many elevators as a shipper has grain in, regardless of what it costs the vessel. And, as if that was not enough, insist, further, on the captain signing what is known among vesselmen as the cut-throat bill of lading, in which the vessel guarantees to pay for any shortage the unloading elevator may make on cargo, which in several cases lately has come to more than the freight, and in other cases left the steamer \$300 or \$400 for a trip which may have cost the vessel-owner \$1,500. Some vessel companies have not paid a cent in dividends in four years, largely owing to the low rates and great delays, and if despatch does not improve shippers will pay very much higher rates this fall than those in question. Some shippers are now offering Canadian vessels from ½c. to ¾c. per bushel less than they are now chartering U.S. vessels for. It is still taking from 36 to 48 hours to load boats of from 80,000 to 100,000 bush. capacity, though this should be done in 6 to 10 hours, and Canadians have sufficient boats to take care of all the grain the elevators at Fort William and Port Arthur will load this fall if they would give the vessels the despatch they are entitled to at each end of the route."

Grand Trunk Pacific Ry.—Dr. J. Alex. Hutchison, Chief Medical Officer of the G.T.R. has also been appointed Chief Medical Officer of the G.T.P.R.

Reid Newfoundland Co.—W. E. Hamilton has been appointed General Passenger Agent of this Company's Railway and Steamship System, with office at St. John's, vice H. A. Morine.

R. P. Inglis, of Montreal, the promoter of the Edmonton Street Ry. and of the Shippers' Cartage Co., Ltd., has gone to Australia for some months.

The Westinghouse Air Brake Co.'s surplus for the last fiscal year amounted to \$760,564 after paying dividends, against a deficit of \$79,740 in 1903-4.

The G.T.R. has offered to contribute \$4,500 towards the erection of a building at Allandale, Ont., for the Y.M.C.A., to which a large number of the G.T.R. employees belong, and to contribute \$90 a month towards its maintenance. In order to provide a suitable building public subscriptions to an equal amount are asked.

Sm.—Why are all vessels spoken of as she? Is it because they glide so gracefully?

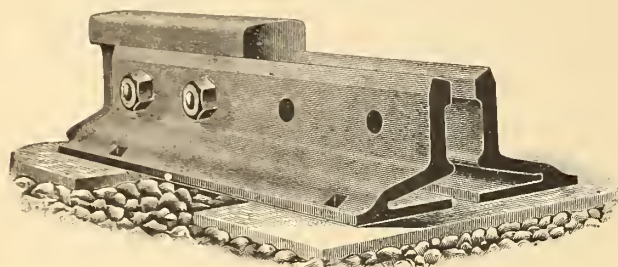
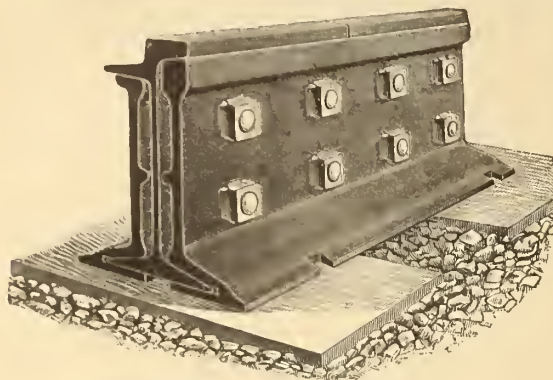
He.—No. It's because their rigging costs so much.

American Locomotive Company.

The report covering the operation of the various works for the year ended June 30, states that the gross earnings were \$24,150,201.06, a decrease of \$8,918,549.50 from those of the year previous. The earnings include the revenue from new work, and also to an increased extent, the overhauling of old locomotives, and sundry other items of income. The expenses were \$19,796,533.49, a decrease of \$7,608,451.91. In making up the expenses, the principles of previous years have been followed, namely, to include the direct manufacturing cost—both labor and material—and all indirect charges against production. The expenses also include the usual depreciation charge of 20% of the book value of patterns, drawings and templets, iron flasks, formers and dies, and the customary adjustment of stock material values. There have been deducted from the resulting net earnings the interest on the bonds of constituent companies, the interest on miscellaneous outstanding obligations, and the usual 7% dividend on preferred stock. It also seemed wise to the directors to charge against income \$1,883,556.96, representing the cost to the company of its permanent investment in the works at Montreal. The result is a surplus of \$607,924.26, which has been carried to the credit of profit and loss account. During the year the policy of improvements and re-construction of shops and machinery has been continued, a further reduction in manufacturing cost being one of the satisfactory results. There have been additions to the property of \$466,952.48 and betterments costing \$131,251.14, all of which have been charged against the extraordinary improvement and betterment fund of \$1,000,000 created June 30, 1904, leaving a balance of \$401,796.38 which will be used for similar additions and betterments during the new fiscal year. In considering the large decrease in operations as compared with previous results, the stockholders should bear in mind that the depression in general business throughout the country began in the fall of 1903 and lasted until a corresponding period in 1904. During this depression very little new business originated among the iron and steel producing and manufacturing companies, which worked chiefly on orders received prior to Oct. 1, 1903. This condition applied with particular force to the manufacturers of railway rolling stock; although having so large a number of contracts on the books, the shops were kept busy on existing orders during the first nine months of the previous fiscal year, viz., 1903-4, and the effect of the absence of new orders was not apparent in the last annual report. As a matter of fact the output for 1903-4 was based almost entirely on the heavy orders received in 1902-03; and the lack of corresponding new orders in 1903-04 is the direct cause of the large decrease in the fiscal year which has just closed. It was because such an outcome was clearly in sight that the directors inserted a precautionary note in the last annual report.

The board is pleased to announce that the company has passed through this trying period of severe business contraction without in the least jeopardizing the dividend on its preferred stock, and since the resumption of business prosperity, it has secured its full share of orders for new locomotives. The company has completed four years of existence, each of which has varied greatly from the others—not only from the standpoint of the general condition of business, but in respect of the company's preparation to handle its product most economically; and the financial results, under such widely

Railroad Essentials.



The day has passed when men of finance are willing to place their money into bad material in railroad construction only to be compelled to replace it by renewals or reconstruction after very little use. Many of the best and most successful steam and electric railroads use the rail joints of the Continuous patent type for standard track work, insulated joints, step joints, and electric bonding joints, for the reason that experience has proven it to be the best appliance of its kind ever put upon the market, as evidenced by the fact that it is used in all parts of the world on over 20,000 miles of track.

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WM. E. CLARK, Manager.

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PROVINCIAL GOVERNMENT LANDS can still be purchased at from \$3 to \$6 per acre.

IMPROVED FARMS in all districts of the province can be purchased at from \$10 to \$40 per acre. These prices are advancing every year.

A FEW POINTERS

On arrival at Winnipeg the wisest policy for any new settler to adopt is to remain in Winnipeg for a few days and learn for himself all about the lands offered for sale and to homestead.

There are districts that have been settled for many years in which land can be purchased. Some of this may be unbroken prairie which still possesses all the richness and productive powers of our virgin prairies. Other lands, cultivated and having comfortable farm buildings, are ready for immediate possession.

There are Provincial Government lands, Dominion Government homesteads, and railway lands to be secured.

The price of land varies from \$3 to \$40 per acre. Location with respect to railways, towns, timber and water determines the price of land.

For information regarding homesteads, apply at the Dominion Land Office.

For purchase of Provincial lands apply at the Provincial Land Office in the Parliament Buildings.

For C.P.R. or C.N.R. lands apply at the land offices of said railway companies.

For lands owned by private individuals apply to the various real estate agents in the city.

For situations as farm laborers apply to :

J. J. GOLDEN,

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Late Supt. Engineer Messrs Elder, Dempster & Co. and Canadian Pacific Railway Co., London

T. O. SINCLAIR, M.I.N.E.

STEEL, PEECH & TOZER, LIMITED,

SHEFFIELD, ENGLAND.

STEEL AXLES, TYRES, AND
SPRING STEEL.

"PHOENIX" Loco. Spring Steel is the
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SOLE AGENTS :

James Hutton & Co., Montreal.

different conditions, have strengthened the expressed faith of the management in the company's future. The most important financial transaction of the fiscal year just ended was the purchase of nearly all of the capital stock—preferred and common—of the Rogers Locomotive Works, of Paterson, N.J., on terms which were satisfactory to the directors. The cost of these securities, which is carried in the investment account on the general balance sheet, is to be met entirely from the surplus of the American Locomotive Co. The Rogers Locomotive Works was organized in 1831, and it is therefore one of the oldest locomotive building establishments in this country. It has a capacity of 300 standard gauge locomotives per annum, and its manufacturing equipment has been greatly improved in recent years. It will be the policy of the American Locomotive Co. to protect the excellent reputation of this veteran organization and to develop its resources to the utmost.

Satisfactory progress has been made in the development of the Atlantic steam shovel. Its mechanical efficiency is thoroughly established and its sales have greatly increased. The company proposes to devote a separate shop at the Brooks works exclusively to the manufacture of this shovel, the sales of which, as heretofore, will be negotiated through the Atlantic Equipment Co. The directors and officers, aided by experts specially engaged for the purpose, are constantly watching for opportunities to broaden the scope and strengthen the position of the company in the industrial field. Particular attention is being paid to the possibilities of development of the electric locomotive, trucks for electric service, motor cars and other power vehicles, etc. In conclusion, the directors express their confidence in the outlook for the company's business during the current fiscal year.

	1904-5	1903-4
Gross earnings.....	\$24,150,201.06	\$33,068,750.56
Manufacturing, maintenance and administrative expenses..	19,796,533.49	27,404,985.40
Net earnings.....	\$4,353,667.57	\$5,663,765.16
Interest on bonds of constituent companies, bills payable, etc.	112,186.35	238,226.07
Profit available for dividend.....	\$4,241,481.22	\$5,425,539.09
Dividend on preferred stock, at 7%.....	1,750,000.00	1,750,000.00
	\$2,491,481.22	\$3,675,539.09
Investment in Montreal works.....	1,883,556.96	*1,000,000.00
Bal. to profit & loss...	\$607,924.26	\$2,675,539.09

*Extraordinary improvement and betterment fund.

In the condensed general balance sheet the property, securities owned, convertible assets, and securities held in trust are valued \$63,910,822.78 against \$60,216,945 at June 30, 1904. The Locomotive and Machine Co. of Montreal is entered under convertible assets "advances to Montreal works, \$924,392.06"; and the item of cost of property \$45,657,080.63 includes all the capital stock of the Richmond Locomotive Works, Manchester Locomotive Works, and American Locomotive Co. of New Jersey, and securities and other property of the Locomotive and Machine Co. of Montreal. There are outstanding \$430,000 of 5% gold bonds maturing 1921, of the Rogers Locomotive Co., and \$1,500,000 4% gold bonds maturing 1924, of the Locomotive and Machine Co. of Montreal, which are not carried as a liability. The liabilities are: Preferred stock, \$25,000,000; common stock, \$25,000,000; bonded debt of constituent companies, \$1,237,500; current liabilities, \$6,851,506.91; extraordinary improvement and betterment fund, \$401,796.38; surplus after paying dividend on preferred stock July 1, 1904, to June 30, 1905, \$607,924.26; credit balance June 30, 1904, \$4,812,095.23.

The report contains illustrations showing the Rogers Locomotive Works, interior views of portions of several other works, and eight photographic views of locomotives built during the year. These include consolidation freight locomotive 1620 for the C.P.R., two cylinder compound mogul freight locomotive 789, for the G.T.R., built by the Locomotive and Machine Co. of Montreal, and two cylinder compound consolidation freight locomotives for the Minneapolis, St. Paul and Sault Ste. Marie Ry., built at the company's Schenectady works.

Minneapolis, St. Paul and Sault Ste. Marie Railway.

Following are extracts from the report for the year ended June 30, presented at the annual meeting in Minneapolis, Minn., Sept. 19:—

	1905.	1904.
Gross earnings from operation.....	\$8,716,621.58	\$6,993,498.41
Income from other sources..	66,335.58	88,654.78
Total income from all sources.....	8,782,957.16	7,082,153.19
Operating expenses.....	4,502,607.33	3,746,780.49
Net earnings.....	\$4,280,349.83	\$3,335,372.70
Fixed charges, taxes, etc....	2,216,934.92	1,948,126.82
Surplus income.....	\$2,063,414.91	\$1,387,245.88

Notwithstanding the partial destruction of the north-western grain crop of 1904, the gross earnings increased 24.6%; net earnings 29.8%, and surplus earnings 48.7%. The operating expenses increased 20.2% and fixed charges (which include interest on funded debt, rentals paid for terminal property and taxes) increased 15.7%. The following comparisons show the rapid growth during the last five years. In 1900 the gross earnings were \$4,006.39 a mile, in 1905 \$4,913.60 a mile, an increase of 22.6%. The surplus earnings during 1900 were \$685.11 a mile, and in 1905, \$1,163.15 a mile, an increase of \$478.04 a mile or 69.8%. During the same period the company's financial condition has greatly improved. In 1900 the funded debt aggregated \$26,375.40 a mile; in 1905, \$24,500.03, a decrease of \$1,875.37 a mile. In 1900 its funded debt and capital stock aggregated \$42,805.39 a mile, and in 1905 \$36,097.82 a mile, a decrease of \$6,707.57 a mile.

From June 30, 1900, to June 30, 1905, there has been added 532.54 miles and the fact that with this additional mileage the gross earnings have been largely increased per mile of road, indicates that the new lines have been located in profitable territory. During the year there has been completed the line from Glenwood, Minn., to a connection with the C.P.R. at Emerson, Man., giving direct connection to Winnipeg. This line passes through the lake region of Northern Minnesota and the Red River valley, reaching the finest farming country in the Northwest. The line is laid with 80 lb. steel, is well ballasted with gravel, and in first-class condition in every respect. The wide territory served via Winnipeg insures a large tonnage and satisfactory passenger traffic. The company is building a line from Thief River Falls, Minn., on its Winnipeg line, westward crossing the Red River valley, passing through the northern part of North Dakota and terminating at Kenmare, on its Pacific coast line, a distance of 300 miles; also a branch leaving this line at Egeland, extending 21 miles northwest to Armourdale, N.D., and an extension of the line north of Bismarck from Underwood to Garrison, N.D., a distance of 20 miles, making about 340 miles new construction during the year. This will all be completed in time to move a large portion of this season's grain crop. The funds for the construction of these new lines are provided by the issuance of 4% first consolidated mortgage bonds. Many improvements have been made during the year to enlarge the company's facilities for business, among

which are a six-story fireproof office building in Minneapolis, the purchase of additional grounds in St. Paul and Minneapolis for terminals, including an independent right of way into both cities; additional buildings and expensive modern machinery have been added to the company's shops in Minneapolis, and numerous buildings, stockyards, loading platforms, track scales, improved water supply, interlocking plants, automatic coaling stations at various points along the road, twenty-two miles of passing and side tracks, and additional telegraph lines from Minneapolis to Emerson, 386 miles in length. During the year the work of improving the alignment and reducing the grades on the line from Minneapolis to Paynesville, Minn., was begun. The cost aggregates about \$490,000, of which \$214,603.42 was charged against the fund appropriated from surplus earnings for improvements, leaving \$183,000 for similar work now under way. Substantial additions were made to the equipment, including 2,000 box cars, 15 cabooses, 12 passenger cars, 150 ballast cars and 9 locomotives. The operating efficiency of the property has not only been maintained, but much improved in both motive power, equipment and roadbed.

The prospects for a very large crop this season are now well assured and should result in a most satisfactory showing for the ensuing year.

The mileage owned and operated is 1,789.79 and 20.90 miles of spur lines. In addition, the company has trackage facilities over 18.52 miles of terminal property in Minneapolis, St. Paul and Sault Ste. Marie.

EARNINGS AND EXPENSES.

Freight.....	\$6,387,247.86
Passenger.....	1,799,034.13
Mail, express and miscellaneous	530,339.59
	\$8,716,621.58
Maintenance of way and structures.....	\$743,693.20
Maintenance of equipment.....	881,702.13
Conducting transportation.....	2,687,173.57
General expenses.....	100,038.43
	\$4,502,607.33
Net earnings from operation.....	\$4,214,014.25
Interest, discount and exchange.....	60,249.83
Interest on bonds and stock.....	6,085.75
	\$66,335.58
Total income.....	\$4,280,349.83
Interest on bonds.....	\$1,706,826.67
Taxes.....	417,163.68
Rental of terminals.....	92,944.57
	2,216,934.92
Net surplus for year.....	\$2,063,414.91

The Expenditure Account Construction and Equipment.—Tony branch, \$10.00; Birchwood extension, \$12,976.40; Winnipeg line, \$2,053,984.76; Bismarck, Washburn & Gt. Falls Ry., \$874.85; Rex branch, \$305.03; Thief River Falls line, \$912,495.59; Egeland line, \$6,554.81; Underwood extension, \$36,710.80; A. B. and N. W. Ry., \$204.21; preliminary surveys, \$8,769.36; terminal property, St. Paul, Minneapolis and other points, \$155,806.67; betterments to main line, \$120,075.24; new equipment, \$1,504,493.56; total, \$4,813,261.28.

Canada Atlantic Railway Transfer.

The following information is supplemental to that published on pg. 471.

The office of M. A. Overend, Foreign Freight Agent, C.A.R., Montreal, has been merged with the office of the Foreign Freight Agent, G.T.R., Mr. Overend having entered the G.T.R. service, attached to the Division Freight Agent's office in Montreal.

We were recently officially advised that no changes had been made, nor were any then contemplated in the position of the following C.A.R. representatives, who have been retained in the G.T.R. service:—H. S. Heyden, General Agent, New York; J. Ritchie, General Eastern Agent, Boston; G. J. Harris, General Western Agent, Chicago; J. B. Heckendorn, Agent, Milwaukee; W. H. Burk, Agent, St. Paul and Minneapolis.

Jas. Ogilvie, heretofore Superintendent

The Hudson's Bay Company



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ON EASY TERMS OF PAYMENT

Town Lots for sale at Winnipeg, Ft. William, Edmonton, Prince Albert, etc.

The Company has General Stores at Winnipeg, Vancouver, Calgary, Edmonton, and other places where purchasers will find the best of goods at moderate prices.

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Full information at the Company's Offices, Winnipeg, or 1 Lime St., London, E.C.

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CANADIAN REPRESENTATIVES

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LOCOMOTIVE SHOPS

PLANING MILLS

CAR SHOPS

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Motive Power C.A.R., has been appointed Master Mechanic, Ottawa Division G.T.R. Office, Ottawa.

E. J. Dalrymple, General Freight Agent G.T.R., issued the following circular Oct. 1:—"All freight tariffs and percentage divisions issued by the Canada Atlantic Ry. and Canada Atlantic Transit Co., now in effect, are hereby authorized for use until further advised."

Railway Finance, Meetings, etc.

Brockville, Westport and Northwestern Ry.—At the annual meeting held at Brockville, Ont., Sept. 5, the report of the Treasurer showed gross receipts of \$54,045.76, operating expenses \$30,145.74, net earnings \$23,900.02, against \$48,431.25 gross; \$30,792.66 operating expenses, and \$17,638.59 net earnings for same period 1903-4. During the year there had been expended \$20,183.73 on permanent improvements to the roadbed and equipments. Following are the officers and directors for the current year: President, J. Gerken, New York; Vice-President, C. P. King, Philadelphia, Pa.; Secretary, C. Heilshorn, New York; Treasurer, H. W. Gengerich, New York; General Manager, M. Zimmerman, New York; other directors: V. Schmitt, New York; J. Cumming, Lyn, Ont.; W. H. Comstock, W. S. Buell, R. Bowie, Brockville, Ont.; W. S. Fredrenburg, A. Bernard, Westport, Ont.

Buffalo and Lake Huron Ry.—The usual dividend of 5s. 3d. per share was declared at the half-yearly meeting held in England. The line is leased at a fixed sum annually to the G.T.R.

Canadian Pacific Ry.—Two rumors affecting C.P.R. finances were denied by Sir Thos. Shaughnessy, President, during Sept. The first of these reports was to the effect that an arrangement had been concluded between the C.P.R. and the G.T. Pacific Ry. for the joint promotion of immigration and development in Manitoba, Saskatchewan and Alberta, and the second was that a syndicate had offered to purchase the balance of the C.P.R. lands in the Northwest, about 11,000,000 acres for \$70,000,000.

Joliette and Brandon Ry.—At the last session of the Quebec Legislature an act was passed incorporating a company with this title—the incorporators being the Comte de Semalle, Hon. N. Perodeau, A. E. Brown, and C. LeM. de Martigny. The first named is described as sole holder of bonds and coupons of the Montreal and Lake Maskinonge Ry., and the next two are described as trustees for the bonds, and the object of the act is to legally vest them with all the powers, etc., possessed by that railway company. The bondholders took possession of the line Oct. 15, 1901, under the powers of a mortgage dated Dec. 1, 1888, and have been in undisputed possession ever since. The line extends from St. Felix, on the C.P.R., to St. Gabriel de Brandon, 11 miles, and is operated under lease by the C.P.R. The company may issue bonds to the extent of \$20,000 a mile, and may enter into agreements with the C.P.R. or the Great Northern Ry. of Canada for the lease or sale of the line, etc.

Massachusetts Valley Ry.—Following are the officers and directors for the current year: President, J. G. Foster, Derby Line, Vt.; Vice-President, C. W. Coate, Sherbrooke, Que.; Treasurer, J. H. Williams, Bellows Falls, Vt.; other directors: C. D. White, J. W. Dunklee, Boston, Mass.; C. W. Kathan, Rock Island, Que.; C. D. White, F. Grundy, Sherbrooke, Que.; Hon. C. C. Colby, Stanstead, Que. Secretary, S. Stevens, Stanstead. This railway, which extends from Lennoxville, Que., to the International boundary, is operated under lease by the Boston and Maine Rd.

Northern Colonization Ry.—An action to recover \$325,000 damages has been started in the Quebec courts, by A. Desmarteau, curator of the insolvent estate of A. Villaini. A claim for \$90,000 was originally made for damages by a fire alleged to have been caused by the company's negligence, June 3, 1903, which destroyed the lumber mills and the village of Villainville; the owner subsequently had to assign, and the second action is to recover for the estate damages for injury to business.

Pere Marquette Rd.—It has been officially announced in New York that the Cincinnati, Hamilton and Dayton Rd., including the Pere Marquette Rd., has been purchased by J. P. Morgan & Co., but in what interest is not known. The mileage of the joint systems is 3,643, of which 223.41 miles are in Canada, and the P.M.Rd. has also an arrangements for running rights over the Michigan Central Rd., from near St. Thomas to the Niagara frontier, Ont.

Quebec Southern Ry.—Under an order of the Court of Exchequer tenders will be received at Ottawa, until Nov. 2, for the lines comprising the Quebec Southern Ry. as a whole, or for the separate lines. The Q.S. Ry. is an amalgamation of the United Counties Ry., the East Richelieu Valley Ry., and the South Shore Ry. The first two lines were amalgamated as the Quebec Southern Ry., and the South Shore Ry. was subsequently acquired. The sale of this latter line was the subject matter of actions in court between certain sections of the shareholders, but the transfer to the Q.S. Ry. was finally affirmed. The combined lines have been operated by G. C. Dessaulles, as Receiver, for the last two years.

St. Lawrence and Adirondack Ry.—Following are the directors for the current year: W. K., F. W. Vanderbilt, C. M. Depew, W. H. Newman, H. McK. Twombly, J. P. Morgan, W. S. Webb, W. Rockefeller, J. Stillman.

Temiskaming and Northern Ontario Ry.—Gross earnings for Aug. \$28,019, expenses \$14,795, net earnings \$13,224.

The Ontario Government has decided to arrange for the direct issue of \$7,000,000 of Provincial bonds, for the purpose of retiring the original loan, renewed in May, and due Nov. 15, and to provide an additional \$1,000,000 for completing the line to the junction with the Eastern Division of the Transcontinental Ry.

Temiscouata Ry.—Gross earnings for Aug. \$13,882.89, against \$13,961.72 for Aug., 1904.

Toronto, Hamilton and Buffalo Ry.—Estimated earnings for Aug. \$57,024.64, against \$49,687.32 for Aug., 1904.

ELECTRIC RAILWAYS.

Canadian Street Railway Association.

The quarterly meeting was held at St. John, N.B., Aug. 29 and 30, on the invitation of the St. John Ry. Co. Among those present were:—The President, W. G. Ross, Managing Director, Montreal St. Ry.; the Secretary-Treasurer, A. H. Royce, Vice-President Toronto Suburban Ry.; P. Dubce, Secretary; D. McDonald, Manager; D. E. Blair, Supt. of Rolling Stock; M. Neilson, Consulting Engineer, Montreal St. Ry.; E. A. Evans, General Manager, Quebec Ry., Light and Power Co.; C. E. A. Carr, General Manager, London St. Ry.; J. Murphy, Electrician, Ottawa Electric Ry.; J. C. Rothery, Supt. International Ry., Niagara Falls; J. W. Morris, Electrical Superintendent, St. John's, Nfld., St. Ry.; J. W. Crosby, Manager Halifax Electric Tramway; A. J. Pattison, Vice-President, Grand Valley Ry.; C. L. Wilson, Traffic Manager Toronto and York

Radial Ry.; Col. H. H. McLean, K.C., Vice-President; J. Manchester, R. B. Emmerson, H. B. Robinson, directors; W. Z. Earle, Manager; J. Hopper, Accountant; H. A. Brown, Electrician; T. Irwin, Chief Engineer St. John, N.B., Ry.; Acton Burrows, publisher of THE RAILWAY AND SHIPPING WORLD, the official organ of the Association.

A recommendation of the Executive Committee that after the next meeting in Dec., meetings should be held half-yearly instead of quarterly, was adopted.

Dr. S. Ritter Ickes, President Grand Valley Ry., being unable to be present, sent an interim report on the fender question, in which he pointed out the disadvantages of the projecting fender and recommended for interurban lines a modified pilot as the only real protection for passengers. D. McDonald approved of the pilot for suburban lines, but it could not be used in cities. The projecting fender had many disadvantages and no doubt multiplied accidents by really increasing the length of the car. If the projection could be done away with many accidents would be prevented. The ideal fender was undoubtedly one underneath the car, close to the front wheels, but in most Canadian cities this could not be used on account of the snow difficulty. C. E. A. Carr explained the Ontario Government regulations in regard to fenders. Three makes had been approved of, but where an agreement existed between a railway company and a municipality for the use of another make of fender, the government did not interfere. In London, by agreement with the city, the old form of dish pan fender was used. He agreed with Mr. McDonald in regard to a fender right in front of the wheels. He considered a cushion on a fender a disadvantage, as in many cases it would throw a person back to the ground. E. A. Evans said that no fender could be adopted which would suit all companies in Canada, as local conditions were different. In the city of Quebec, on account of the narrow streets and short curves a short fender was necessary. They used the dish pan.

A suggestion by President Ross to establish a question box for members was approved.

Col. McLean explained the extraordinary action of the New Brunswick Legislature in passing an act varying the agreement between the St. John Ry. Co. and the city of St. John.

STREET RAILWAY ACCOUNTING.

In the absence of J. M. Smith, Comptroller of the Toronto Railway Co., the following paper, written by him, was read by C. L. Wilson, Traffic Manager Toronto and York Radial Ry.

Since the organization in March, 1897, of the Street Railway Accountants' Association of America, the subject of street railway accounting has occupied the minds of most of the brightest accountants in street railway work throughout the United States and Canada, and as I feel certain that all street railway companies here represented are members (if not they should be) of the above association, they will have fuller information than I can possibly give, in their libraries, in the many papers which have been prepared and read, and published each year in the annual report of said association, dealing with all branches of accounting necessary to street railways.

Accounting is as a barometer, which indicates to the management the fluctuations in earnings, operating expenses and net incomes, or briefly, the exact condition of the company at any and all times. To be able to properly classify accounts, it is essential that the accountant should familiarize himself with the use of all classes of material. He should be able to discuss intelligently with the heads of the different departments, all matters per-

SPIKES

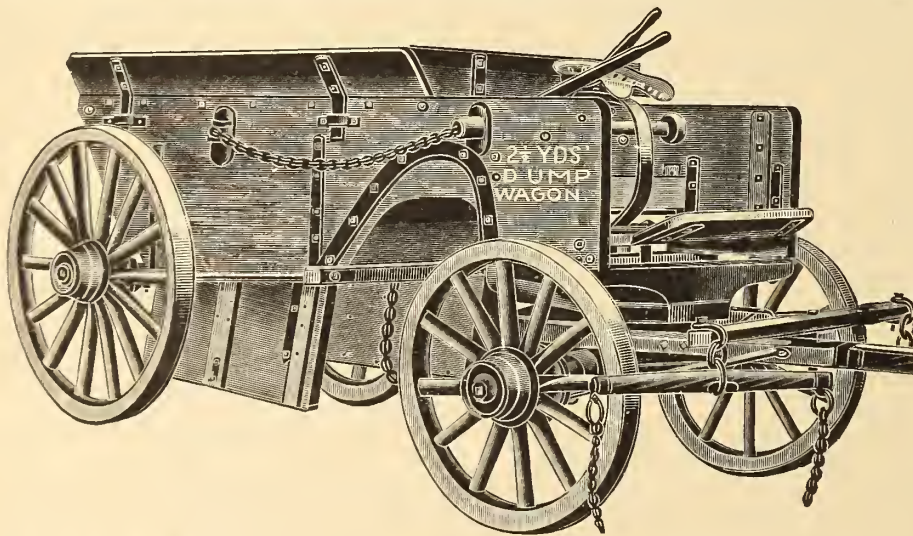
We make them as good as they can be made. Roll the material ourselves—and we're particular about it. **POINTS** we see are clean cut and well tapered. **HEADS** must be full and true. If they pass our inspection we're sure they will yours.



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Round trip tickets are now on sale until September 30th, good for ninety days from date of sale, with stop-over privileges going and returning, via all direct lines. Rates from Toronto \$66.75 going or returning through California, \$77.75. This will be the grandest opportunity ever given the public to visit the Pacific Coast at a very low rate. The Great Wabash is acknowledged by all travellers to be the shortest, best and quickest route to all Pacific coast points. Berths reserved and all other information cheerfully furnished from any ticket agent, or

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taining to construction and operation, and by so doing, not only will he be able to keep his records and accounts in much better form, but in reasoning out matters with them, this knowledge will prove of inestimable value to all parties interested. The chief accountant should be in close touch with the manager at all times. He should make his monthly reports in such detail and in such form that will enable the management to make regular comparisons, not only with other companies similarly situated, but which will enable comparison and checking the cost of operation from time to time in all departments of the company. It must be borne in mind that every manager is not a trained accountant; it therefore becomes the duty of the accountant to see that his reports are such as to be clearly understood. A good practice is to accompany said reports with an explanatory letter setting forth the reasons for increases and decreases where they occur, that will enable the manager to look into excesses. I am of the opinion that the untiring efforts of many conscientious accountants in supplying great detail are not appreciated, or that the information is not made use of to the extent that it should be. The accountant is not called upon for information as to practical mechanical construction, etc., but is looked to for full detail as to cost of everything, such as power station, steam and electrical equipment of same, car houses, tracks, overhead feeder and trolley lines, cars, trucks, motors, tools and machinery, etc., and the cost of operation in all its various divisions, such as transportation, power expenses, maintenance of equipment and miscellaneous expenses. To properly answer all inquiries, requires that the accountant classify all labor and material under a large number of headings to enable him to keep the information. The 37 operating accounts recommended by the Street Railway Accountants' Association, have been sub-divided into about 150 or 160. To some it may seem a great task and a waste of labor, but with a proper system, no difficulty should be experienced and the labor involved would be slight compared with the value of the results. A system can be adapted to every company, large or small, city or suburban, that will place the accounting department in a position to give all information required.

SHOP ORDER.—The introduction of shop order numbers can be so easily arranged to any class of work that it will be found of great advantage. Many times the department is asked the cost of certain repairs or renewals, but on account of the work having been done by the same men who attended to the general repairs, and the work being of a similar nature, the charges very often are mixed so that it is impossible to tell the exact cost of the work; hence, an estimate is all that can be obtained, whereas, if a number is placed on a certain piece of work and instructions given that all material and labor must be charged to said number, no matter how many different numbers are in force, you can always turn to the different numbers and find the exact cost of labor and every item of material used in connection with the work. It may only be the painting of five cars, the rebonding of a certain portion of track, the renewal of a section of the overhead trolley, etc., all of which would come under general repairs, the satisfaction would be in knowing the exact cost of the particular work, where if done under general repairs, the cars would be painted and charged along with all other car repairs, the track with general track repairs, and the overhead trolley with general overhead repairs. Everything can be charged to the order numbers until work is completed and carried in a general ledger account or distributed monthly as desired. Too much stress cannot be laid upon the necessity for keeping in great detail, labor and material separately, of everything that enters into the cost of construction and operation of a street railway, as sooner or later

you will be called upon for information that can only be supplied by the introduction of some such system.

MATERIAL AND SUPPLIES.—In the purchase of material and supplies, lack of system may frequently mean loss of money in duplicate charges and payments or differences in price. In our company no material is ordered by the purchasing agent until a requisition is made out in duplicate and is approved for purchase by the manager, when the original is returned to the purchasing department and the duplicate is forwarded to the accounting department. When the material requisitioned is ordered, a duplicate of the order for the material showing from whom same was ordered, is forwarded to the accounting department. The stores are required to report daily all material and supplies received, and when the invoices come to hand, the purchasing agent certifies the prices correct. The order of purchasing summarized is as follows:—1. Manager's approval for purchase. 2. Orders placed for supplies. 3. Receipt of material by stores department. 4. Prices of goods certified correct. I might say the system in vogue in this company's stores is the lot number system, which is working very satisfactorily. All the labor that is required of the store department when issuing material and supplies to the different departments is to enter the lot number in the proper column, on the various orders, the value and class of material being in possession of the accounting department. The forms used by the several departments for ordering material from stores are filled out by each and are so arranged that by using a carbon the same is duplicated, thus saving considerable writing, the original being forwarded daily by stores to the accounting department when the price of the material is entered and the charges made to the proper accounts.

EARNINGS.—Car earnings should be so reported to the manager as to enable him to see the comparison of one route or line with another, that he may be enabled to operate the system with the smallest number of cars consistent with good service. For instance, if on one line the records are continuously showing earnings of 32c. per mile, while on another line they are 16c., there must be some reason for the difference. It will enable him to look into the matter when his attention is called to it.

TICKET DESTROYING.—The question of destruction of tickets is one that is being inquired about at the present time. The general custom I find has been to burn either in a large stove or furnace or at the boiler-room in the power stations. It has been admitted by many, that this system has not been satisfactory, and while there are ticket destroying machines, the experience of this company with one, some years ago, was that you could only feed the machine a few at a time or it would choke; this you will see gave the clerk having in charge the destruction of the tickets an opportunity to appropriate some of them if so inclined. Some six or seven years ago, I had our engineer construct in the basement of our office building, a small furnace, a simple square brick enclosure with a large iron door in front. In this enclosure was placed a cylinder made of extra heavy mesh; the cylinder is constructed so as to allow a portion to open, being hinged at the back and having a fastener at the front; the cylinder revolves on a short axle in one end with a longer one at the other, the long one being extended through the end of the furnace wall, to the end of which is attached a handle by which the cylinder can be turned as often as required. Under the cylinder is a gas pipe running the full length, with holes to allow the gas to ignite when wanted. The ticket counters, when through counting, place their tickets in small bags which are immediately handed the cashier, who encloses them in 50 lb. flour sacks, seals the same and places them in his vault until it is convenient for him to take them to the cylinder.

He is accompanied by one of the clerks, when the large bags of tickets are placed in the cylinder which is immediately locked, then the outer door to the furnace is also locked with spring locks, the keys of which do not leave the hands of the cashier, then the gas is turned on and match applied. The gas is left burning only long enough (about five minutes) to allow the tickets to ignite. The tickets will not burn through without being turned over by the rapid revolving of the cylinder, which can be done occasionally by the office boy turning the handle above referred to; they are allowed to remain in the cylinder until next day, when the cylinder will be cooled off to allow the next batch of tickets to be placed in. In the cylinder is placed a bar of iron so that when the cylinder is being revolved, the bar bangs and dislodges the tickets so that they burn more freely. This bar also breaks the charred tickets when cooled off, sufficient to allow the refuse material to fall through the mesh when the cylinder is turned each day before placing therein a fresh bag of tickets. Thus you will see no person (other than your trusted cashier) can possibly come in contact with the tickets.

I regret very much that time will not permit my dealing with other points that might be touched upon, but will again strongly advise the careful perusal of the reports and many suggestions laid down by the Street Railway Accountants' Association of America, which I am sure will prove of profit to all who will do so.

J. W. Crosby said that in Halifax they used to burn the tickets in the boiler furnaces, but some slightly charred tickets came back as fares and they now use a chopping machine which cuts the tickets into three parts, after which they are burned. J. Hopper said the St. John Ry. followed the plan recommended by the Street Ry. Accountants' Association. C. E. A. Carr approved of Mr. Smith's suggestion for the closest connection between the manager and the accountant. The destruction of tickets was a much more important matter on Canadian than U. S. lines. In the U. S. cash fares predominated, in Canada it was the reverse. In London the ticket fares amounted to 78% of the total. They had some charred tickets tendered a few years ago, but they were still burning them at the power house. They were, however, considering the installation of a machine to work the tickets into a pulp, under the charge of the cashier. J. C. Rothery emphasized the necessity for close communication between the manager and accounting department. On the Niagara Falls Park and River Ry., 95% of the passengers used tickets. The tickets were burned weekly, under his personal supervision, and in 12 years' experience he had not known of any charred ones having been tendered. He thought the idea of macerating tickets a good one. W. Z. Earle said that in St. John, N. B., they burned the tickets in a furnace, closing the damper for a few minutes and raking the heap over. D. McDonald, in moving a vote of thanks to Mr. Smith for his paper, endorsed the remarks in connection with the importance of close connection between the manager and the accounting branch. The accountants' department was the barometer of the general conditions of the business. He advocated that managers should be supplied with daily approximate statements of earnings, expenses, etc., so as to guard against surprises. President Ross warmly commended the paper, although he did not quite agree with its suggestions in regard to lot numbers, to which he thought some objections might be urged. In regard to ticket destroying, some one must be trusted, and he thought the boiler furnaces at the power house as good a place as any if proper precautions were taken. He referred to the establishment of the Street Ry. Accountants' Association at Cleveland in 1897, when he and Mr. Smith

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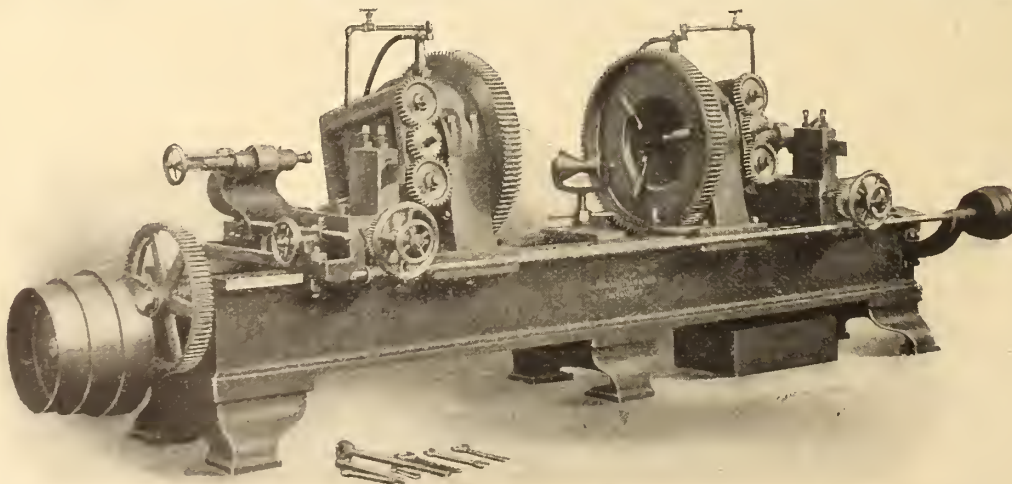
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were among the organizers. Of about 25 lines represented, some had no accounting systems except on paper, others had very complicated ones. A committee was appointed to recommend a uniform system, and the Association practically adopted the systems which the Toronto Ry. and the Montreal St. Ry. had been using since 1892. He thought very few lines went into as close details as the Montreal St. Ry. The chief accountant should be in close touch with the manager at all times. He agreed with Mr. Smith's recommendations in regard to the shop order system, which he thought was followed by most companies.

Some discussion took place in regard to the crossing of electric railways by steam railways, A. H. Royce explaining the practice adopted by the Board of Railway Commissioners in regard to the cost of installation and maintenance.

It was decided to take a mail vote of the members as to the most suitable months in which to hold the semi-annual meetings in future.

On the second day of the meeting, P. Dubee explained the working of the Montreal St. Ry.'s Mutual Benefit Association, which was followed by an interesting discussion in which Messrs. Rothery, Evans and Murphy took part. The question of uniforms and the cost of water power were also discussed.

The members inspected the power house and plant of the St. John Ry. and expressed their satisfaction with its excellent condition and the methods of its operation.

The St. John Ry. Co., represented by its Vice-President, Col. McLean, entertained the members most hospitably. On the evening of the first day of the meeting they were tendered a dinner at the Union Club, the arrangements for which were most perfect. The floral decorations of the table were in exquisite taste, the cuisine was faultless, and in every respect the affair was one of the most enjoyable the writer has ever attended. Col. McLean, who is an excellent after dinner speaker, presided with great tact and kept things moving with a "go" which is so often lacking at large dinners. A number of toasts were proposed and responded to, the speakers being, Col. McLean, W. G. Ross, A. H. Royce, Col. Tucker, T. Trenholme, D. McDonald, C. E. A. Carr, E. A. Evans, J. W. Crosby, J. W. Morris, W. Z. Earle, Acton Burrows, A. J. Pattison, J. C. Rothery, H. B. Robinson and P. Dubee. The menus were beautifully got up in antique leather covers, bearing the St. John coat of arms, and containing a number of charming views of scenery in and around the city. On the following day the members went as guests of the St. John Ry. Co. to the seaside park which the company has established in the west part of the city.

Electric Traction for Railway Service.

By J. A. Shaw, Assistant Electrical Engineer,
C.P.R. Montreal.

It is to-day generally admitted that, so far as the actual moving of trains is concerned, the electric motor can do the work better than the steam locomotive. But the more important question is, will it pay to convert steam roads to electric. This is best answered by the amount of such work which is now being carried out throughout the world, the results obtained and the advantages possessed by electric traction. These may be briefly enumerated as follows: 1. Those appealing to the passenger, and the consequent increase in traffic. 2. Those relating to the operating of trains from one central power house. 3. The savings in capital, maintenance, and operation.

The most noticeable to the passenger, namely those affecting his comfort, are the

cleanliness of the cars due to the absence of smoke and cinders, especially in tunnels, also the better distribution of heating and lighting made possible. Another factor is the higher speed attainable, not only for continuous runs, but with the same running speed as on a steam line, the average speed is higher and the duration of the trip reduced by the more rapid starting and stopping made possible by the increased traction due to the uniform rotary movement of motors. An additional gain in runs of considerable length would be in the abolition of stops for water or fuel.

The saving in the cost of generating power in a large central power house, with the refinements possible in steam generation and consumption as well as to the high load factor, is apparent especially as the cost of fuel increases at the more remote fuel stations on a steam road. An inferior grade of coal may also be used or if water power is available the cost of power will be very largely reduced. In spite of these advantages, it is questionable if a saving could be shown for electric traction in its present stage, on a road with infrequent trains. Under present economical conditions, electricity is limited to a certain degree, to large terminals, suburban lines, spurs to main lines, and mountain railways. However, the operation of through trunk lines will come shortly as the art advances and as the various water powers throughout the country are developed.

The cost of roadbed construction is in favor of electric traction, a higher grade being attainable and permitting of a shorter route. The equipment of an electric road is higher than the initial outlay for equipping the same road for steam operation; this difference is, however, counterbalanced by the larger outlay for terminal facilities and the cost of steam and water stations for a steam road.

Experience has shown that maintenance and operating expenses with electric traction are much lower than with steam. This applies specially as regards track up-keep, the roadway being subjected to less wear and tear as there is no jumping, pitching or side-way oscillation. A road with heavy traffic and a large and efficiently operated power house should use only one-half as much coal as one using steam locomotives and this may even be reduced to one-third by the application of refinements made possible with large steam generating plants. This saving, it is stated, has been made by the Italian Mediterranean Ry. On another converted road it has been observed that the cost of lubrication is now less with electric traction, and the absence of smoke results in an important reduction in the cost of cleaning. The wages of train staffs on an electrically operated road can be materially reduced, as the engineer and fireman are replaced by a motorman who does not need to go through a long and complicated training, and who consequently is not entitled to so high a rate. This saving in labor, however, is questionable practice, especially where a high speed schedule is in force.

Actual figures of the comparative cost of electric and steam roads, operating under similar conditions, are difficult of obtaining as yet. It has been determined by city elevated roads that the capacity of lines has been increased by one third, and the operating expenses reduced from more than 55% to less than 45% of its gross receipts.

The Assistant General Manager of the North-Eastern Ry. of England stated recently in Washington, that his road had in self-defence converted a suburban service in order to regain traffic from competing trams and to increase its amount. This they had successfully accomplished with a large increase in traffic with a resulting reduction in expenses so that the net revenue

now more than covers the interest on the extra cost of installation of new system.

The experience of another English railway, the Lancashire and Yorkshire, has been somewhat similar. This line adopted electric traction not primarily for the sake of economy, but to increase receipts and decrease the crowding of terminals. During the twelve months the line has been operated electrically, there has been an increase in traffic, but the cost of operation has been more expensive. The cost of coal per ton mile is greater, but the running expense less, because of the greater mileage run by train crews. The introduction of electricity has increased the capacity of terminals 30 to 40%, due to the elimination of the time lost in handling a train upon its arrival, the electric motor cars only requiring motormen to carry operating lever from one end of train to the other, and the throwing of one or two switches is the only operation required for fitting the train for a run in the opposite direction. Total combined operating expenses show a considerable reduction can be made in the cost of conducting transportation by the introduction of electric traction, but it is difficult to secure figures that will permit an exact analysis of each of the items which go to make up the saving.

At present there are, generally speaking, five systems available for heavy electric traction: 1. The direct current system, such as now exists on our street and inter-urban lines. 2. The alternating-direct current system, consisting of sub-stations placed at intervals along the line to which alternating current power is transmitted at a high voltage and then lowered by step-down transformers to synchronous motors driving direct current generators feeding the trolley. 3. The single phase alternating current system, in which single phase motors receive power from transformer sub-stations along the line which receive either high voltage single phase or polyphase alternating current from the power station. 4. The Leonard system, in which direct current motors are fed from motor-generators on the locomotives, the latter receiving single phase alternating current from the power station, either direct or through transformer sub-stations along the line. 5. Polyphase system, in which three phase alternating current induction motors on the locomotive are fed from three phase transformer sub-stations along the line, which receive three phase alternating current from the power station. Diagram herewith shows the different features of the various systems. The advantages, disadvantages, and limitations of the various systems are as follows:

1. Direct Current. Propulsion by direct current distribution direct is limited to short distances on account of the low limiting pressure of 600 volts, which makes the cost of copper prohibitive for heavy traction over average distances. Other things being equal, the weight of copper required is inversely as the square of the voltage. The collection of the large amounts of current required with a larger electric locomotive, frequently amounting to 2,000 h.p. at starting, becomes extremely difficult if not impossible with an overhead feeder in a 600 volt d.c. system, so that recourse has to be taken to the third rail. The objections to the latter are so numerous and are so well known that they need not be gone into in detail, except to mention that the third rail is likely to cause accidents to section men, increase cost of maintenance, and in case of a slight derailment, its presence might result in serious damage and the blocking of road for a considerable length of time. It is indeed true that the wrecked portion might be isolated, as regards danger, by cutting off the current; it would also, however, to a great extent, be isolated as

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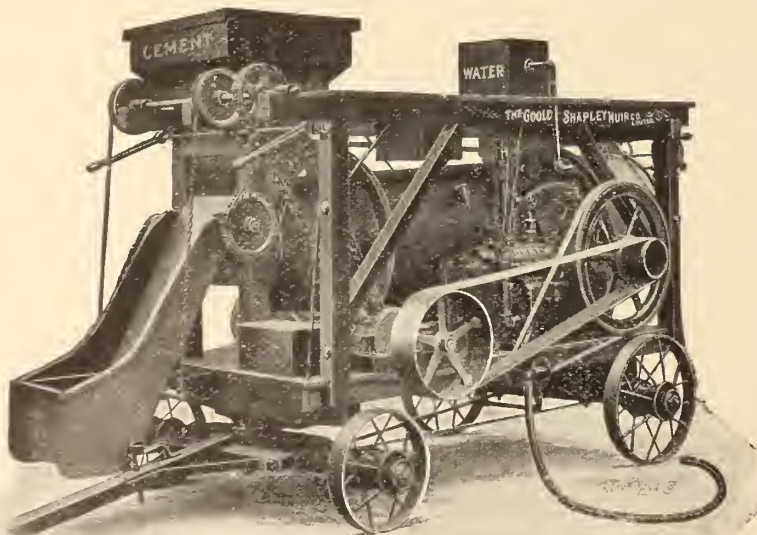
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regards ability to bring up other apparatus for clearing the track. In fact, if the presence of a third, and probably a fourth rail were a necessity in connection with the introduction of electric traction, it is seriously to be doubted whether most of our railway companies would ever be brought to consider it. Other serious drawbacks, such as the comparatively large rheostatic losses occurring at the starting up of motors, also the dangers from electrolysis, might be mentioned showing the unsuitableness of this system for heavy traction.

2. Alternating direct current. In this method of distribution, the losses in transmission and the expenditure for copper are avoided by distributing alternating current at a high voltage to sub-stations placed at convenient distances, in which are installed step-down transformers and rotary converters which convert the alternating current of lowered pressures to 600 volts direct current feeding it into trolley of third rail. This is the system adopted by the New York Central Rd., and is the one installed by the Lancashire and Yorkshire Ry. on its double tracked 23 mile line between Liverpool and Southport. Alternating current three phase power is generated for this road at 7,500 volts, of a frequency of 25 cycles, and is transmitted from a power house to four sub-stations, which step-down the high tension current to low tension alternating current, from which it is converted in rotary converters to direct current, at 600 volts. This power is fed thence through feeder conductors, to the third rail, and returned from fourth rail, bonded to each running rail by return feeders. The drawbacks to the previous system apply equally to the direct current part of this system, and in addition there are the disadvantages of the sub-stations containing the direct current rotary converters, which being revolving machines require manual attendance, entailing a large initial expenditure, and a large operating staff as well as increasing liability to break down, by the introduction of another link in the electric circuit. In view of the various disadvantages, as mentioned in the foregoing, it might be interesting to look into the reasons for the adoption by the New York Central Rd. of this system. The reason for their action, it would appear, were those of policy, as well as engineering. The word policy in this respect refers to the idea that the system adopted should leave every opportunity for the possible future interchange of equipment with other local systems, including the rapid transit lines. The relative costs of the a.c. and d.c. systems were in favor of the direct current equipment, and a further objection to the a.c. system was the use of an overhead construction of bare wire in tunnels and viaducts, which included liability of injury to trainmen as well as a tendency to corrosion of wires from the gases of freight steam locomotives. Among other points, was the fact that the a.c. locomotive would have a greater weight, thus adding 7 to 10% to the train weight, with a consequent increased cost of transmission, installation, and operation of power plants. Further, the cost of maintenance of alternating current apparatus would be greater. The depreciation would also be greater, due to the equipment being more novel, and more or less untried, and would, therefore, have to be discarded in the near future to make room for improved types, whereas the direct current apparatus, being standardized, and universally in application, would prove a good asset.

3. The single phase system to-day is, in the opinion of the majority of engineers, the one which is essential for heavy and long distance railway service, and conforms to the ideal requirements for electric traction. The development of the system has only

become prominent and made possible within the last two years, due to the fundamental feature of the system, the single phase commutator motor having been brought to a high degree of perfection for railway work. It should be borne in mind that the advantages accruing from this system, are due primarily to the use of alternating current, rather than to any advantages, of the a.c. railway motor over the d.c. railway motor, though it should be noted that it has equally good characteristics, and is almost as efficient. The credit of the many advantages gained with this system, however, must be given to the a.c. railway motor since its development has made the exclusive use of single phase alternating current on railway systems practicable.

The details of one of the several single phase roads now operating are as follows: Power is generated at 2,200 volts, and in the power house, by means of static transformers having no moving parts, transformed to 33,000 volts. At this voltage, it is transmitted to transformer stations, located every 10 or 12 miles along the line, where it is reduced to 3,300 volts and fed to the trolley. The transformer stations require no attendants, as the feeder lines are all controlled from the power house, and the stations have no apparatus with moving parts. The 3,300 volt trolley current is carried into the car by a bow trolley, and through a static transformer, in the car, reduced to 250 volts for which the motors are designed. This is an extremely flexible system; by making changes in the transformers, which are not expensive and always good assets, the transmission voltage or the trolley voltage can at any time be changed to meet the requirements of new conditions which may arise. The trolley voltage could be increased to 6,000 volts, which would give sufficient power for operating 100-ton locomotives, with the same size trolley wire, in use. In order to protect passengers and crew from the high pressure used in this system, all car wiring is placed in metal conduits and connected to trucks, so that should any defect in insulation develop it will result in the tripping of the automatic circuit breaker in car or locomotive.

With the single phase a.c. system, the overhead conductor and its many advantages are retained. There are objectionable features to its use, some of which may be named as follows: Difficulty of securing head room through tunnels under bridges as existing structures. These have been eliminated by using a third rail. Snow and ice will collect on the trolley wire. This has been overcome, with more or less success, by coating wire with various solutions or greasing it, by supporting wire from underneath, and collecting current from top of wire, as is done in several Swiss installations, or by passing a heavy low voltage current through wire, raising temperature of same. Poles and guy wires breaking, and allowing the trolley wire to fall, or

breakage of trolley wires. These latter objections are possible to avoid by better construction, which has been introduced with the single phase railway, and consists of a catenary suspension cable or cables supported on insulators on suitable brackets from poles, trolley wire being suspended at intervals of ten to twelve feet from steel cables; this method of suspension allowing of trolley wire being kept at a uniform height above the tracks. For heavier service steel bridges spanning tracks, and carrying the suspension cables, may be used. Liability of a break occurring is reduced to a minimum by using two cables.

A summary of the principal advantages of the a.c. electric traction over the d.c. are: Limits to trolley voltage are removed. Avoiding of rheostatic losses. No necessity for rotary converter sub-stations with manual attendance. Danger of electrolysis by return current avoided. These and other advantages are so well recognized by engineers, that this form of electric traction is now being taken up in England, Europe, and South Africa, as well as on this continent. The Swedish Government Railways have purchased equipment, and are making experiments with trolley voltages up to 18,000 volts, and eliminating the use of sub-stations with step-down transformers for lowering transmission voltage to a lower trolley voltage. In South Africa the Government has recently placed an order for the equipment of one of its main lines with this system.

In order to consider more in detail the relative costs of the alternating and direct current systems I give herewith a comparative list of costs of entering into the equipment of a 60 mile interurban road where the schedule proposed requires five local cars having one hour headway; one express car making the round trip in three hours and one freight car making trip between terminals in eight hours.

	Direct- Current.	Alternating Current.
POWER-HOUSE.		
Building.....	\$10,000	\$10,000
Foundations.....	2,500	2,500
Boilers and settings.....	12,000	12,000
Steam piping and covering.....	7,500	7,500
Engines.....	22,000	22,000
Generators.....	18,000	23,000
Exciters.....	1,000	1,000
Step-up transformers, 800 kw.....	8,000	7,500
Switchboard.....	3,500	3,000
Wiring.....	3,000	2,500
Feed-water heater.....	800	800
Pumps.....	800	800
Coal storage.....	1,000	1,000
Smoke stack and flues.....	2,000	2,000
Fuel economizers.....	3,000	3,000
Stokers.....	3,500	3,500
Incidentals.....	4,400	4,400
Totals.....	\$103,000	\$106,500
SUB-STATION IN POWER HOUSE.		
Building extensions.....	\$1,000	\$1,600
Synchronous converter, 300 kw.....	4,800	
Transformer, 300 kw.; 200 kw. alternating current.....	3,200	2,000
Switchboard.....	2,000	1,300
Wiring.....	1,000	500
Incidentals.....	600	200
Totals.....	\$12,600	\$4,600

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Insulators, pins and cross-arms....	7,500	5,000
Erection.....	4,000	3,000
Incidentals.....	1,000	1,000
Totals.....	\$22,500	\$20,500

SUB-STATIONS ALONG THE ROAD.

Building.....	\$2,000	\$1,000
Synchronous converter.....	4,800	
Step-down transformers.....	3,200	2,000
Switchboard.....	2,000	1,300
Wiring.....	1,000	500
Incidentals.....	500	200
Totals.....	\$13,500	\$5,000

Four sub-stations.....	\$54,000	\$20,000
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TROLLEY-LINE AND FEEDERS.

Poles, 3,500.....	\$17,500	\$17,500
Poles distributed and set.....	4,000	4,000
Guys and anchors.....	2,000	2,000
Brackets with hangers.....	18,000	25,000
Copper, direct current.....		
Feeder, 12 mls., 500,000 cir. mls.		
Feeder, 48 mls., No. 0000.....		
Trolley, 120 mls., No. 000.....	95,000	
Alternating current.....		
Trolley, 60 miles, No. 00.....		21,500
Feeder insulators.....	2,000	
Erection.....	10,000	4,000
Incidentals.....	7,500	4,000
Totals.....	\$156,000	\$78,000

BONDING OF RAILS.

Both rails bonded.....	\$30,000	
One rail bonded.....		\$15,000
Cross bonds.....	2,000	1,000
Totals.....	\$32,000	\$16,000

ROLLING STOCK.

Ten vestibuled passenger cars, each equipped with 4 motors, and weighing about 30 tons.....	\$75,000	\$85,000
Two express passenger cars, equipped with 4 motors, and weighing about 35 tons.....	18,000	20,500
Two freight cars, each equipped with 4 motors, and weighing about 30 tons.....	10,000	12,000
Snow-plough and construction car.....	7,000	8,500
Totals.....	\$110,000	\$126,000

RECAPITULATION.

Power House.....	\$103,000	\$106,500
Sub-station in power house.....	12,600	4,600
Transmission line.....	22,500	20,500
Sub-stations.....	54,000	20,000
Trolley line and feeders.....	156,000	78,000
Bonding.....	32,000	16,000
Rolling stock.....	110,000	126,000

Totals.....	\$490,100	\$371,600
Cost per mile, direct current system.....	\$490,100/60 = \$8,168	
Cost per mile, alternating current system.....	371,600/60 = 6,193	
Saving per mile, alternating current system.....	\$1,955	

The decrease of alternating current cost in terms of direct current investment, 25%.

The increase of direct current cost in terms of alternating current investment, 32%.

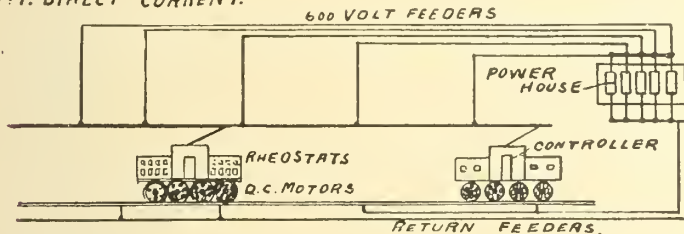
4. The Leonard system is in reality a form of foregoing system, and involves the supply of single phase current to an alternating current motor on the locomotive, motor in turn driving a direct current generator. This generator furnishes current for the operation of the car motors. By varying the voltage of d.c. generator by means of rheostat, any desired voltage may be obtained on motor supply circuit, thus allowing of the obtaining of a perfectly smooth and rapid acceleration, with minimum energy, from the supply circuit, and the starting up of a locomotive does not produce a peak in the load diagram. Such a system, while it may be feasible in the case of large locomotives, yet does not furnish a general solution of the railway problem, as the arrangement is not flexible enough. In the ideal system the same method of operation, and the same types of apparatus, should be used on the feeders or branch lines as on the main lines, if full benefit is to be obtained by electrification.

5. The polyphase system has been developed by European engineers, and a number of installations have been made in Europe. American engineers consistently refuse to adopt the polyphase induction motor for the following reasons, namely: (a) The motor is inherently a constant speed one, and therefore not adapted for traction work; at one definite speed only is the polyphase motor efficient. One expedient used to overcome this is to run motors in concatenation or tandem, which gives a second speed at one-half of normal speed. By winding motors for a different number of poles, more than the two speeds may be obtained, but this arrangement has the disadvantage of being able to use but one-half of the total motor capacity above half speed, while the greatest expenditure of energy takes place above that speed. (b) The necessity of providing for at least two overhead conductors. (c) The fact that motors must be built with small air gaps to give most efficient results.

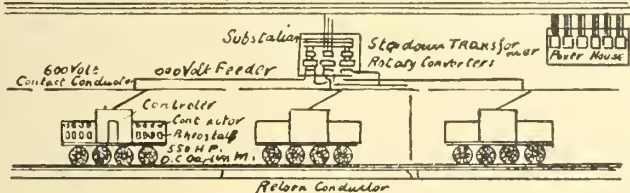
The advantages of the polyphase motor for traction purposes are as follows: In contrast to the single phase motor, the tractive effort at starting is greater. This is due to the fact that in the single phase motor the torque is not constant, but varies between a maximum and zero, with double the frequency of the line current. The mean value of the torque is only one-half of the maximum torque when shipping wheels, which means, where the tractive effort required necessitates going to the limit of adhesion between wheels and track, a single phase locomotive must have almost twice as much weight on drivers as either a d.c. or three phase locomotive. This difference holds true only for motors mounted directly on car axles, and will be somewhat less if geared. The weight of a three phase motor is only about three-quarters of the d.c. motor of equal capacity, and approximately one-half that of a single phase motor, and the cost is also less. The cost of equipment is also made lower, as the transformers on the locomotive may be dispensed with, as motors of this type are now made for operation direct on voltage up to 10,000 volts. The three phase motor is probably the most robust and thoroughly mechanical piece of machinery extant, and the maintenance of same would be less than with any other system. Generally speaking, the conditions most favorable for the adoption of this system are rare, and are when the lines are long, when there are few trains with few stops, and when the lines have long and regular gradients, particularly if there is plenty of motive power and it is cheap. In the case of mountain railways, the polyphase system has a special advantage in that power may be returned to the line when running down hill, motors acting as generators and thus allowing of the electrical braking of trains.

While the wholesale retirement of the steam locomotive in favor of its electrical competitor cannot take place in the immediate future, owing to capital now invested, there are many isolated sections of steam roads in the operation of which electric traction could effect economies which would pay well for its adoption. These economies may be in the direction of a reduced fuel, labor, and maintenance account, but may be more far-reaching, and warrant changes in the present method of operating by steam. The millions of dollars contemplated for reducing grades, and double tracking certain sections of single track roads in order to increase their capacity with steam locomotives, might be spent with promise of greater return if used for installing electrical equipment.

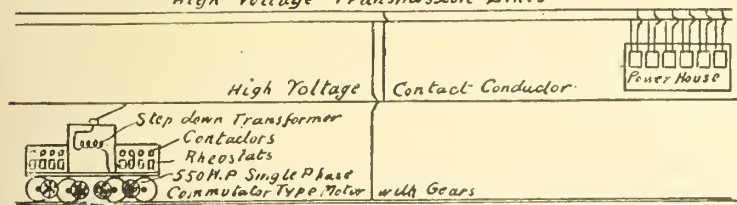
No. 1. DIRECT CURRENT.



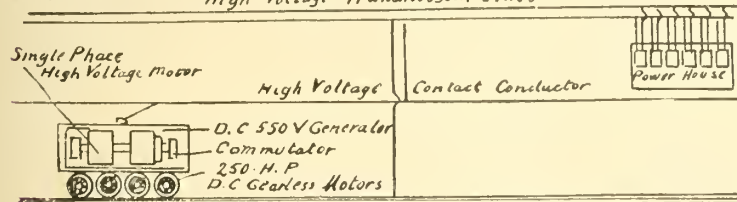
No. 2. ALTERNATING DIRECT CURRENT High Voltage Transmission Lines



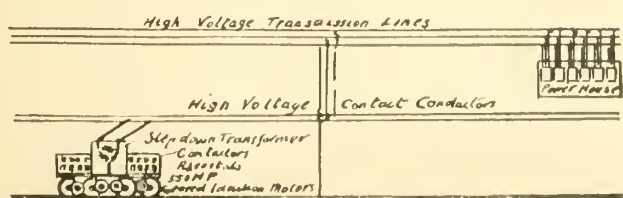
No. 3. SINGLE PHASE ALTERNATING High Voltage Transmission Lines



No. 4. LEONARD High Voltage Transmission Lines

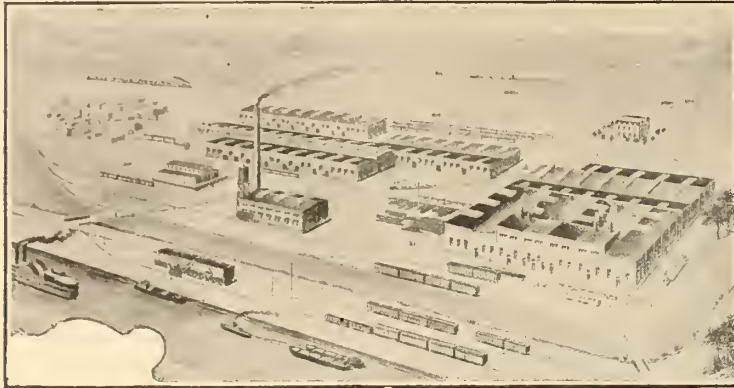


No. 5. POLYPHASE



Canada Car Company

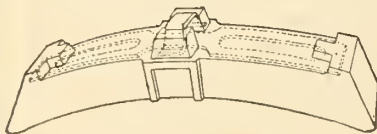
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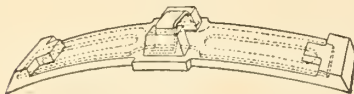
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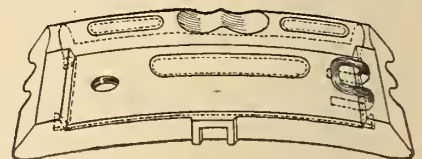
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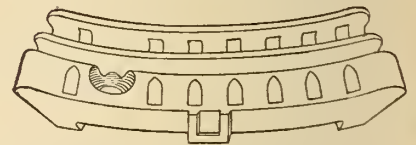
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The whole situation as regards electric traction is excellently summed up in a few words spoken by Mr. George Westinghouse, during the opening exercises of the American Railway Appliance Exhibition, held in Washington, in connection with the International Railway Congress. He stated the case as follows: "A new era in railway operation has dawned with its many new problems. I refer to the growing use of electricity for the movement of trains. There have already been such demonstrations of the benefits to be derived from the substitution of the electric motor for the steam locomotive, that it requires no great prophet to predict the extensive growth of electric traction upon the great railways of the world, and the eventual replacement of the steam locomotive. Fortunately, the time element, which is such a controller of events, and the financial problems involved, will ensure gradual development and extension of the use of electricity. With these changes have come vastly different engineering problems and new sources of danger, which should, and will, command and receive that attention which is essential to the surmounting of every difficulty as it arises."

The foregoing was read at a recent meeting of the Canadian Railway Club.

Projects, Construction and Betterments.

Brantford and Hamilton Ry.—The promoters of the Hamilton, Ancaster and Brantford Ry. have completed negotiations with the owners of the B. and H. Ry., by which they secure the Dominion charter to construct an electric railway to connect Hamilton and Brantford, Ont., in addition to the Provincial one they previously owned. The transfer of the charter was signed at Brantford, Sept. 6, on which day the franchise granting an entrance into Brantford was also signed. C. D. Haines subsequently stated that the line would be constructed under the charter of the Brantford and Hamilton Ry., that grading would be gone on with at once, and that orders for rails, cars, etc., would be placed as quickly as possible. Under the Hamilton by-law the line has to be in operation by Nov., 1906. (July, pg. 313).

Brandon, Man.—A company with the title of the Kensington-Brandon Land and Development Co. has applied to the Brandon, Man., city council for a franchise for a street railway there. J. Curry, broker, Toronto, is Vice-President of the company, which owns considerable real estate in Brandon.

British Columbia Electric Ry.—Arrangements are in progress for the construction of a branch in North Vancouver, B.C., at a cost of about \$200,000. The surveys for the line are to be made at once. (Aug., pg. 369).

Buckingham Electric Ry., Light and Power Co.—At the last session of the Quebec Legislature several sections of the act incorporating this company were repealed and new sections added. In the first place the name of the company is changed to the Lievre Valley Power, Traction and Manufacturing Co., and the route of the electric railway authorized to be constructed is defined in the new clause to be from Hull to the mouth of the Du Lievre River in the township of Buckingham or L'Ange Gardien, and along the Lievre River valley to meet the G.T. Pacific Ry. The company is given extensive rights to develop water powers, work mines, carry on business as ship-owner, ship-builder, expressman, mail carrier, wharfinger and warehouseman. The line has to be completed within 15 years, but if it has not been constructed to the mouth of the River Kiamika within that period, the company shall pay to the Crown \$1,000 a year at the end of 50 years; if at the end of 15 years the line is completed to Kiamika River, the \$1,000 a

year will not be payable until the lapse of 100 years from the passing of the act.

Fraser Valley Electric Ry. and Power Co.—J. B. Morgan, the General Manager and promoter of the company, which was originally called the Chilliwack Power and Light Co., has been spending a good deal of time in canvassing the municipalities to be served by the proposed line. A meeting was held in New Westminster, B.C., Sept. 8, when Mr. Morgan explained that in connection with the power development plant on the Chilliwack River it was desired to construct an electric railway from Chilliwack to New Westminster. The route had been surveyed, and the report of the engineer showed that a line could be constructed with a maximum gradient of 1%, with very easy curves. Work had been started on the power station and a portion of the right of way had been cleared. (Sept., pg. 425).

Fort Erie to Crystal Beach.—The project to construct an electric railway from Fort Erie to Crystal Beach, or Point Albino, Ont., has been revived, and District Attorney Coatsworth of Buffalo recently stated that he had been told by those interested that the capital had been subscribed, and that it was also hoped to secure the franchise of the Fort Erie Ferry.

Grand Valley Ry.—The Galt, Ont., Town Council has reached an agreement with the G.V.R.Co., under which the company will pay the corporation \$1,100 in lieu of building the roadway along which its tracks extend into the town to join those of the Galt, Preston and Hespeler Electric Ry. The franchise question has now been satisfactorily settled. (June, pg. 261).

Hamilton, Ancaster and Brantford Ry.—See Brantford and Hamilton Ry.

Hamilton Radial Ry.—All the bridges and culverts on the extension from Burlington to Oakville, Ont., have been completed as far as Bronte, and the grading finished. A good deal of the grading between Bronte and Oakville is completed, but it will be some time before the bridge at Bronte will be built. (Aug., pg. 369).

Hamilton, Grimsby and Beamsville Electric Ry.—Representatives of the Lincoln County Council recently discussed with the directors the question of the abandonment of the Vine-land extension. The directors said the decision to tear up the tracks was irrevocable, but the extension would be operated until the end of the fruit season. (Aug., pg. 369).

Lake Achigan Electric Tramway.—A. B. Crachet, St. Hyppolite, Que.; J. W. Molson, Montreal; J. Boisseau, St. Jerome, Que., were incorporated at the last session of the Quebec Legislature, with this title, for the purpose of constructing an electric railway from Lake Achigan in St. Hyppolite, to St. Jerome, Que., either by Shawbridge, or by New Glasgow. The company is authorized to develop power, to construct telephone and telegraph lines, etc. Bonds to the extent of \$15,000 a mile may be issued, and municipalities are authorized to subscribe for shares in the company.

London Street Ry.—The company has decided not to re-construct the High St. extension, but to construct either the Wortley St. stub, or the Edward St. line as the city desires. The mayor expressed an opinion that a census should be taken in 1906, when he thought the population would show a sufficient increase to demand two additional miles of line. The corporation has decided in favor of the construction of the Edward St. line. (Aug., pg. 369).

Longueuil Tramways Co.—An act incorporating a company with this title was passed last session of the Quebec Legislature, the incorporators being—Hon. J. Girouard, J. Riendeau, V. Pigeon, O. Dufresne, H. St. Mars, P. Z. Ste. Marie, L. Trudeau, S. Labonte,

E. Pigeon, J. I. Lamarre, of Longueuil, Que. The company was given power to construct a tramway to be operated by electricity or any other power than steam, from Longueuil to some point in Montreal or Maisonneuve, Que., by way of Victoria Bridge, (with the consent of the G.T.R.) or by any other bridge that may be built, or by laying rails on the ice during the winter. The company may only lay tracks in Montreal or Maisonneuve to the nearest point where a suitable junction may be made with the Montreal Street Ry. The capital is fixed at \$100,000, and \$25,000 of unassessable stock may be issued to creditors in payment of services, rolling stock, etc. Power to run stage lines is also given, and the company may amalgamate with any other railway, tramway or transportation company.

The company has made an application to the Longueuil Council for a franchise. (Sept., pg. 427).

The Montreal Street Ry. has completed its new line on St. Lawrence St., giving a double-track between Mount Royal Ave. and Sherbrooke St. The line was opened for traffic, Sept. 12. The old tracks on St. Dominique St. are to be abandoned. (Sept., pg. 427).

Ottawa Electric Ry.—The Board of Railway Commissioners has granted the company leave to appeal to the Supreme Court, against the order directing it to pay a proportion of the cost of the Bank St. subway. The ground of the appeal is that the company is entitled by its franchise to the unimpeded use of the street, and cannot be compelled to pay for its improvement in the way suggested.

The St. Catharines, Pelham and Welland Electric Ry. Co. was incorporated by the Ontario Legislature in 1904, to construct an electric railway from St. Catharines to Welland, Ont., with a branch from near Fonthill to Fenwick Station, on the Toronto, Hamilton and Buffalo Ry., and was given power last session of the Ontario Legislature to extend its projected line from Fenwick to Dunnville, Ont. The company's charter had been sold to the interests which now own the Niagara, St. Catharines and Toronto Ry., and the power transmission line now under construction from Niagara to Toronto.

(See Niagara, St. Catharines and Toronto Ry., Sept., pg. 427).

Southwestern Traction Co.—Application was made to the Railway Committee of the Ontario Government asking for an order to expropriate certain lands for its right of way without the consent of the municipalities interested, and without an order from the county judges. The Committee decided recently not to give the order, but further consideration will be given to the question upon the company submitting a draft form of the expropriation order desired. The company has secured its right of way, and almost completed its line between London and St. Thomas, but one or two owners will not enter into negotiations for the sale of their land. (Aug., pg. 373).

Toronto and Hamilton Ry.—A meeting of the Electrical Development Co. has been called to be held in Toronto, Oct. 2, for the purpose of considering a proposal of the T. and H. Ry., for the use of a portion of the right of way of the Toronto and Niagara Power Co., between Toronto and Niagara Falls, Ont. The proposed agreement is to run for 99 years, and the rental to be paid is 5% upon one-half of the total cost of the right of way, the T. and H. Power Co. to have the right to patrol the line with its cars, and to have free transportation for its operating staff. (June, pg. 261).

Toronto and York Radial Ry.—At a meeting of the Railway Committee of the Ontario Government recently, the plans for the extension of the Mimico division from Long

(Continued on page 489.)

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Nosbonsing and Nipissing Ry.—No changes were made in the directors or officials of this railway at the annual meeting, held Sept. 25.

Union Station, Toronto.—G. Healey, Baggage Master, has resigned.

A Toronto daily paper stated on Sep. 28, that F. H. McGuigan was about to retire from the position of Manager of Transportation, Maintenance and Construction, to confine himself to his executive duties as Fourth

Vice-President G.T.R. Mr. McGuigan has not held the title of Manager since he became Fourth Vice-President, but has remained in charge of operating, maintenance and construction. The same report stated that the operating, maintenance and construction would be placed under W. G. Brownlee, at present Superintendent of the Middle Division at Toronto, who would be succeeded by U. E. Gillen, now Assistant Superintendent at Lon-

dor. On Sept. 29, we were officially advised that the statements made by the Toronto daily paper were incorrect.

W. H. Taylor, who has been appointed General Storekeeper of the Intercolonial Ry. comes from Albert Co., N.B.

W. E. Hamilton has been appointed General Passenger Agent of the Reid Newfoundland Co.'s railway and steamship system, vice H. A. Morine.

Projects, Construction and Betterments.*(Continued from page 487.)*

Branch to Oakville, were under discussion, and certain difficulties were adjusted. Construction is being proceeded with in the vicinity of Port Credit, and it is understood that the grading is to be gone on with right through. The line has been completed from Mimico to the Etobicoke River.

During a thunderstorm on Sept. 12, the Mimico division car barns near Toronto were struck by lightning and burned, together with several cars, and a quantity of tools. The barns are to be rebuilt at once. (Sept., pg. 427)

Windsor, Essex and Lake Shore Rapid Ry.—A Detroit, Mich., press report states that the provisional directors, at a meeting held Sept. 19, decided to begin construction within a few days. The company, it was stated, had secured its right of way from Windsor to Chatham, Ont., via Maidstone and Tilbury. We think that statements in regard to this project should be accepted with caution. (June, 1904, pg. 193.)

Electric Ry. Finance, Meetings, Etc.

British Columbia Electric Ry.—Gross earnings, railway and lighting, \$89,398; working expenses, \$45,975; renewal funds, \$8,500; net earnings \$34,923, against net earnings of \$25,696 for July, 1904. Approximate income from investments \$5,467, making the net income for the month \$40,390. The gross receipts for July include receipts from C.P.R. line to Steveston operated by electric-ity under recent agreement.

Halifax Electric Tramway.—Railway earnings for Aug. \$17,754.53 against \$17,402.03 for Aug., 1904.

The directors have declared a quarterly dividend at the rate of 6% per annum, payable Oct. 2. The company paid a 6% dividend in 1898, but since then the dividends have been at the rate of 5%.

Hamilton Street Ry.—The Hamilton City Council has received a report from its auditors who have made an examination of the books relating to the line for a number of years past. Electric cars displaced the old horse cars in 1892; in 1899, there was a change in the management of the Company and in 1900 the Hamilton Cataract Power, Light and Traction Co. became the owner of the system. The report shows that from 1890 to 1899 the net profits on the line, all expenses being paid, were \$60,103.57. Out of this dividends amounting to \$44,010.80 were paid, leaving a balance, a surplus, of \$16,092.77 for the nine years. From 1900 to 1904 the net profit has been \$122,648.94. Adding this to the balance under the old management, the net profits from 1890 to 1904 have been \$138,741.71. In this time no charge has been made for director's fees, or administration purposes, nor has any account been taken of the depreciation in plant and equipment, except a sum of \$23,492.05, spent in the period between 1900 to 1904. The new owners spent on the line \$60,705.70, for which a debit is entered in the railway books. An estimate of the depreciation, prepared by an expert, this year, shows that to bring the condition of the line up to the standard of 1892 would cost \$372,908.91. That, in other words, is the estimated depreciation in the 12 years. To bring the present system right up to date would entail a further cost of \$77,600, the extra expenditure being for heavier rails, and better cars. Therefore, to entirely bring the street railway up to date, and wipe out the indebtedness to the Cataract Power Company, would mean an expenditure of \$521,210.61. To provide for this there is only a net profit on the whole time of \$138,741.71. The capital stock now is practically the same as in 1892—\$205,000. No dividend has been paid since

1899. From 1892 to 1904 a percentage amounting to \$202,283.81 has been paid to the city. The present bond indebtedness of the company is \$500,000, of which \$295,500 consists of the cost of the change from horse cars to electric. The charge of the Cataract Power Co. to the street railway for power is based on car mileage, and the cost for power in the four years was: 1900, \$12,442; 1901, \$25,343; 1902, \$25,343; 1903, \$31,277; 1904, \$34,460. The increase has not been in extending the lines, but in more frequent and faster trips made by the cars. Compared with Ottawa, where there are special advantages in water power plant, the cost of operating expenses per car mile, is 11.42 cents, and in Hamilton it is 11.48 cents. In 1904, 1,290,644 miles were travelled, as against 1,193,760 in 1900. The auditors state that on the basis of figures prepared by New York experts for New York state, the cost of power operation for Hamilton would be \$22,881.92, whereas it is \$34,460.22 in actual fact.

Montreal Street Ry.—Passenger earnings for Aug., \$257,463.20; total earnings, \$262,009.08, against \$226,764.08 and \$236,245.27 for Aug., 1905. Working expenses, \$136,198.83; fixed charges, \$35,469.16; surplus, \$90,341.04, against \$122,991.36 working expenses, \$30,255.99 fixed charges, and \$82,998.97 surplus for Aug., 1904. Net earnings for 11 months ended Aug. 31, \$912,790.23; fixed charges, \$267,388.89; surplus, \$645,401.34, against \$820,653.63 net earnings, \$231,262.81 fixed charges, and \$589,390.82 surplus for same period 1903-04. Interest on Montreal Park and Island Co.'s bond held not included.

St. Thomas, Ont., Street Ry.—Total receipts for Aug., \$2,691.91 against \$2,017.11 for Aug., 1904.

St. John Ry., N.B.—Application is being made by the company to the Privy Council to have set aside the act passed last session of the New Brunswick Legislature dealing with the assessment of the company's tracks and other property in the city. The application will be heard at Ottawa early in Oct.

Toronto Ry.—The Court of Revision has confirmed the assessment of the company's rails, ties, poles and wires at \$7,500 a mile, being an increase of \$1,200 a mile on the assessment for the current year. The company is assessed on 92.936 miles of rails, etc., a total of \$697,920.

Electric Railway Notes.

The B.C. Electric Ry. Co. has completed several new city and interurban cars for use on its various lines.

After meeting all expenses the Montreal Street Ry. Mutual Benefit Association cleared \$5,000 at its recent picnic.

D. A. Starr, formerly President and Managing Director of the Cornwall, Ont., Street Ry., is now General Manager of the Clyde Valley Electrical Power Co., Glasgow, Scotland.

The G.T.R. granted the Toronto and York Radial Ry. permission to take several cars of the Toronto Ry Co. across its tracks at Sunnyside, Toronto, to replace those burned in the car barn Sept. 12.

The International Ry. Co. of Buffalo, N.Y., has completed a funeral car for use on its lines. It is a single deck car, and is divided into two sections, the smaller one in front being for the coffin and chief mourners.

The observation car of the Montreal Street Ry., which was illustrated in our Aug. issue, has been placed in use on the company's lines, and on the Montreal Park and Island Ry., making trips round the two mountains every hour.

F. Hoffmeister, who was recently appointed Electrical Superintendent of the

B.C. Electric Ry., Vancouver, B.C., has resigned on account of ill-health. Just after his appointment, and before moving from Winnipeg, his wife died.

The Toronto Ry. is equipping its cars with air brakes, and as a result the indictment against the company for alleged neglect to have its cars fitted with proper appliances for the protection of passengers has been allowed to stand until the December assizes.

Application has been made to the Minister of Marine by the Winnipeg Electric Street Ry. Co., for permission to place a high potential wire over the Red River at Lombard St., Winnipeg, to carry current from the Lac du Bonnet power plant, for distribution in Winnipeg.

E. A. Evans, General Manager, was presented with a silver-mounted pipe, and A. P. Doddridge, Superintendent, was presented with a suit case, by the employees of the Quebec Ry., Light and Power Co., in connection with the recent successful picnic held.

A. J. Beamis, Manager Cape Breton Electric Co., Sydney, N.S., has resigned, being succeeded by T. C. Townsend, Assistant Manager. Mr. Beamis was presented with a travelling trunk, rifle and shooting outfit by the employees of the company, Sept. 12, on the occasion of his leaving for Grand Rapids, Mich.

C. E. A. Carr, who has been General Manager of the London, Ont., Street Ry. for some years, has resigned, and has been succeeded temporarily by G. W. Bender, of Cleveland, Ohio. C. Tolmie, the company's Treasurer, has also resigned, and — Benson, of Cleveland, Ohio, has been appointed temporarily as his successor.

The Township of Sarnia recently brought an action in the Ontario courts for the purpose of restraining the Sarnia Street Ry. from operating its cars on the Huron Beach extension of its lines on Sundays. After hearing counsel Justice Magee, on Sept. 8, directed that an order be made restraining the company from operating its cars on Sunday mornings, with the exception of the milk car, and a single passenger service for church goers.

Grain Elevator Notes.

The Northern Elevator Co. has opened new elevators at Creelman and Rossburn, Sask.

The Medicine Hat Milling Co. has arranged to build a 50,000 bush. elevator at Medicine Hat, Sask.

Green Bros. elevator at Harrow, Ont., on the Pere Marquette Rd., was burned to the ground recently.

The Alberta Pacific Elevator Co., and the Western Milling Co., it is reported will erect elevators at Wetaskiwin, Alta., this fall.

The Prescott Terminal Co. has announced that its elevator at Prescott, Ont., will be fitted up and placed in operation this season.

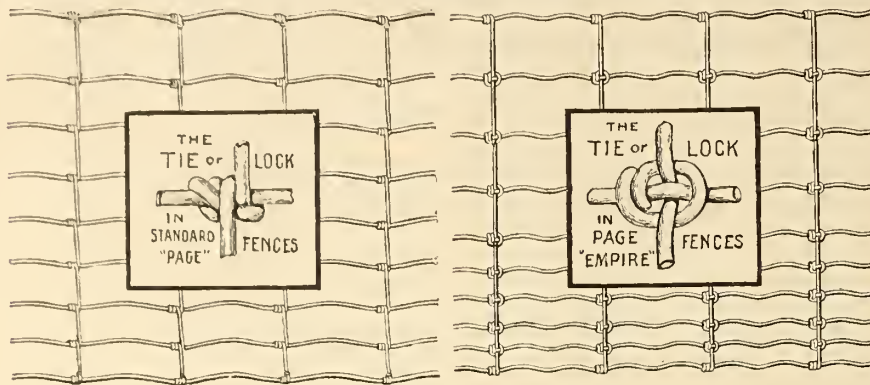
The Alexander Brown Milling and Elevator Co.'s mill and elevator at Toronto were burned out Sept. 19, the damage being estimated at \$180,000.

The Keewatin Flour Milling Co. expects to have its mill building and elevator, now under construction at Keewatin, Ont., completed by Jan. 1, 1906.

With the completion of the new C.P.R. sorting yard at Fort William, Ont., work at the elevators will be expedited. On arrival at the yard the grain trains will be inspected, and the cars sorted out and made up into trains for the different elevators.

The taxpayers of Goderich, Ont., have passed a by-law guaranteeing \$25,000 of bonds of the Goderich Elevator and Transit

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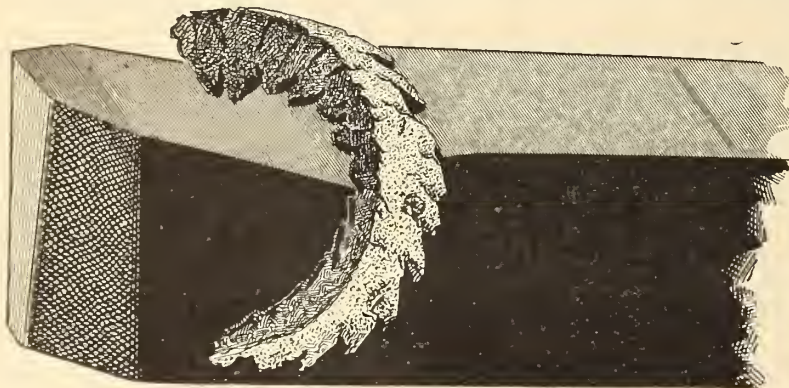
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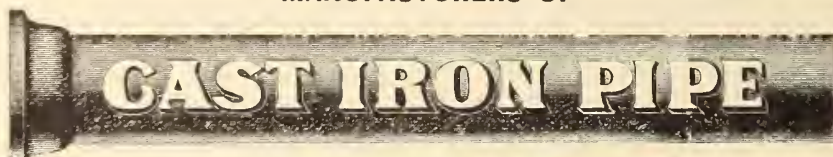
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Co., and granting exemption from taxes for 10 years for the elevator now under construction to replace the one recently burned.

Plans have been ordered by the Montreal Harbor Commissioners to be prepared for a complete system of conveyors for the elevator at the harbor. The plans will be prepared by the John S. Metcalfe Co., Chicago, Ill., which is also to have the supervision of construction.

A recent press despatch from London, Eng., stated that the Western Canada Cement and Coal Co., a British company, proposed to erect 300 to 500 elevators throughout the Northwest, and that the company was floating an issue of £225,000 first mortgage bonds, for the purpose of acquiring lands, and erecting a cement manufacturing plant at Kananaski, Alta.

P. Burns & Co. is the title of a company to which incorporation has been given under the Dominion Companies' Act for the purpose of carrying on a general business in grain, farm produce, etc., and in connection therewith to purchase or construct elevators, charter or purchase steam and sailing vessels, or to acquire any similar business. The offices of the company are to be at Calgary, Alta., and the capital is fixed at \$2,000,000.

SHIPPING MATTERS.

The Turbinia-Primrose Collision.

Commander O. G. V. Spain, R.N., Dominion Wreck Commissioner, assisted by Capt. S. Crangle and A. A. Wright, of Toronto, as assessors, held an investigation in Toronto, Aug. 29 and 30, respecting the collision in Toronto harbor Aug. 12, between the S.S. Turbinia, owned by the Turbine Steamship Co., Hamilton, Ont., and the Toronto Ferry Co.'s str. Primrose. Judgment was delivered by Commander Spain, in Toronto, Sept. 22, the assessors concurring. After giving particulars as to the tonnage, crews, and inspection of the two vessels, the judgment says:—

"The Turbinia and the Primrose were lying at their respective wharves in Toronto; the Turbinia stern out and the Primrose bow out. In accordance with her usual custom, the Turbinia backed well out into the bay, somewhere in the vicinity of 1,000 yards, far enough as the captain considered to make his turn and proceed through the western channel. The Primrose left her wharf and ported her helm when she was clear, and proceeded on her course to her destination at the Island. After getting out far enough and just as she started ahead, the Turbinia signalled a steamer, presumably the Kathleen, which vessel got out of her way. The helm of the Turbinia was then put hard a-starboard, and at this time there were some 1,500 yards between the Primrose and the Turbinia. At this point there is very conflicting evidence in regard to some small boats in the vicinity of the Turbinia; however, there is no doubt that it did not require much manoeuvring on the part of the Turbinia to clear these boats as her helm was kept hard a-starboard the whole time. When within 500 or 600 yards of the Primrose it apparently occurred to Capt. Bongard of the Turbinia that the Primrose might possibly be in his way, and at this distance he signalled with two blasts of his whistle; this signal was taken no notice of by the master of the Primrose, and from the many witnesses examined there appears every reason to believe that the signal was not heard on board the latter ship, more especially when it is taken into consideration that the master of the Primrose was in full view of the master of the Turbinia, and no action was observed on the part of the Primrose after the two blasts were given, and this fact should have been evident to the master of the Turbinia. The

master of the Turbinia did not repeat the signal and still held to his course, giving the danger signal when within about 300 yards of the Primrose and reversing his engines. Captain Murphy, of the Luella, stated that he was about 200 yards to the southward and westward of the two vessels at the time of the collision, and previous to it he thought the Turbinia was going under the stern of the Primrose, and he could not understand when he heard the two whistles why the Turbinia apparently intended to cross the bows of the Primrose, as there was ample room between the Primrose and the shore (with no obstacle in the way) for the Turbinia to pass.

"The court is of opinion that the engines of the Turbinia should have been stopped when the two blasts were given and no notice taken of this signal by the Primrose, which vessel, as already stated, at that time was some 500 to 600 yards distant. The master of the Turbinia seems to have been aware from the time he started to make his turn, after backing out from the dock, of the position of the Primrose, that is to say when she was some 1,500 yards away, and secondly, when she was 500 or 600 yards distant from him. There is no doubt that both vessels were in fault in regard to speed, as laid down by the regulations of the Toronto Harbor Board—the Primrose slightly in fault, and the Turbinia considerably so.

"Taking all the facts into consideration, the court considers that it ought to have been brought to the mind of the master of the Turbinia that the courses upon which the vessels were approaching, and attending circumstances, involved risk of collision, and as the Turbinia was the overtaking vessel, with the Primrose on her starboard side, the onus is thrown on the master of the Turbinia in not doing that which the rule prescribes, that is, to keep clear of the overtaken vessel.

"It seems to the court that it showed lack of judgment on the part of the master of the Turbinia, that, having a vessel fitted with every modern appliance under his command, with an experienced wheelsman at the helm, and with steam steering gear, with which, as the nautical expert retained by the Turbine Steamship Co. so aptly puts it, she can be steered accurately with one finger, he should have been unable within a distance of 1,500 yards to avoid a collision, which he himself apparently considered a possibility. From the evidence adduced there is no doubt that, had it not been for the action of the master of the Primrose in porting his helm when a collision was imminent, the Turbinia would have struck his vessel stem on, as her helm at the moment of striking was still hard a-starboard.

"The court cannot favorably comment on the action of the master of the Turbinia after the collision occurred. From the evidence, it appears that the Turbinia proceeded on her course after the collision, without making any inquiries as to what damage had been done, or whether the Primrose was in need of assistance. The court can well see that possibly it is not so material in this case to ascertain what damage had been done as it would have been had the casualty occurred on the open lake, but considers that the well-known rule of 'standing by' should have been observed in this case, as it is a recognized fact that a ship should obey this rule, even at some risk to herself, and although the other appears to be in no danger.

"Taking all these facts into consideration, the court considers that Capt. Bongard showed a very grave lack of judgment, thus endangering the lives of hundreds of passengers on both vessels, and therefore suspends his certificate for nine months from Aug. 12, the date of the collision.

"The court wishes to bring to the attention of the Harbor Commissioners of Toronto that the second paragraph of section 8, by-

law 11, of the by-laws and regulations of the harbor, seems to be entirely a dead letter, it being proved by all the witnesses at the investigation who were questioned on the subject, that not only is the law in regard to the speed of four miles an hour not carried out, but that it is impossible to carry it out. This being the case, the court would suggest that this by-law be amended to more fully meet the requirements of the increasing trade of the port of Toronto. It is understood that these by-laws came into operation nearly 20 years ago.

"The court also desires to point out to the Toronto Ferry Co. that the system of not having a proper look-out on board the ferry boats, and the captians more or less enclosed in the pilot house, is not a good one, although the court is fully aware that the same practice is followed elsewhere."

After reading the judgment, Commander Spain read the following statement:—"The master of the Primrose holds a service certificate as master of a passenger steamer in inland waters. The master of the Turbinia holds a certificate of service as master of a fore-and-aft-rigged sailing ship in inland waters, which certificate is endorsed to act as master of steamers also. The certificate of Capt. Bongard did not entitle him to command a passenger steamship, but he is exonerated from any wilful desire to act in a wrong capacity, as he might have misunderstood the limitations of his permit."

Jas. Mann, 1st officer of the Turbinia, and who was last year mate on the Niagara Navigation Co.'s str. Chippewa, is now in command of the Turbinia, in consequence of Captain Bongard's suspension.

Notices to Mariners.

The Department of Marine has issued the following notices:

No. 72. Aug. 8.—British Columbia—178. Ganges harbor, uncharted shoal.

No. 73. Aug. 9.—New Brunswick—180. South coast, Bay of Fundy, southwest Wolf Island, change in character of light.

No. 74. Aug. 10.—Quebec—183. River St. Lawrence, ship channel between Quebec and Montreal, Champlain upper range, front tower moved, lights shown from beacons temporarily. 184. River St. Lawrence, Lake St. Peter, east lightship moved temporarily.

No. 75. Aug. 11.—Ontario—185. River St. Lawrence, Thousand Islands, Gananoque Narrows, gas buoy established. 168. River St. Lawrence, Thousand Islands, Jackstraw shoal, change in color of light.

No. 76. Aug. 12.—New Brunswick—187. South coast, Bay of Fundy, Passamaquoddy bay, St. Andrew's harbor, buoy established. Nova Scotia—188. West Coast, Tusket river, buoys established.

No. 77. Aug. 14.—British Columbia—189. Vancouver Island, Albert head, telegraph cable, caution.

No. 78. Aug. 22.—Nova Scotia—192. 192. Bay of Fundy, Lurcher shoal, lightship to be removed from her station temporarily for repairs.

No. 79. Aug. 22.—Ontario—195. St. Joseph channel, Wilson channel, range lights established.

No. 80. Aug. 31. Quebec—196. Chaleur Bay, Macquereau Point, lighthouse burnt down, temporary light.

No. 81. Sept. 1.—Quebec—197. Submarine telephone laid across the River St. Lawrence between Doucet's Landing and Three Rivers.

No. 82. Sept. 2.—Ontario—198. Lake Huron, Goderich, new range light.

The following have been issued by the U.S. Hydrographic office:



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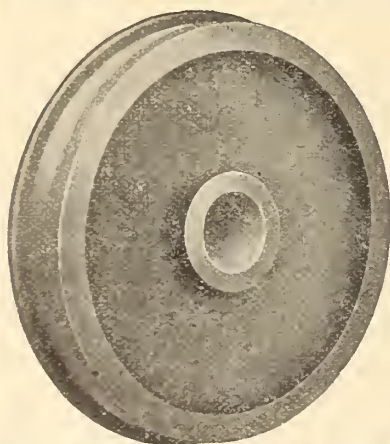
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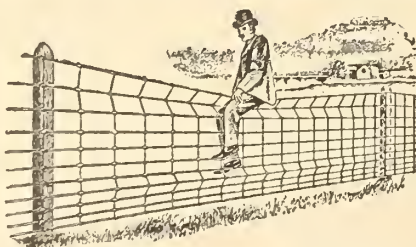


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George Duchscherer, Prop.

No. 35. Sept. 2. St. Mary's River—1371. Sault range light station, alteration. 1372. Hay Lake channel, east side middle float light, alteration. St. Lawrence River—1375. Ogdensburg N.Y., harbor, entrance channel, depths.

Maritime Provinces and Newfoundland.

A press report states that the ice-breaking str. Montcalm will be stationed at North Sydney, N.S., during the winter, for the purpose of keeping the harbor open.

The Dominion Government has presented R. McLeod, a light keeper on St. Paul's Island, with a gold watch in recognition of his services in assisting the crew of the str. Turret Bay, when she was wrecked there recently.

There has been added to the Newfoundland register of shipping, during the current year, the names of 125 vessels, of which 73 were built on the island, the remainder having been purchased at St. Pierre, Miquelon, or at Maritime province ports.

The Dominion Government has awarded a contract for dredging in St. John, N.B., harbor to G. T. Mayes. The amount of work to be done under the contract has not been stated, but \$100,000 was voted during the last session of Parliament for the work at that point.

The Dominion Atlantic Ry. Co.'s str. Prince Arthur has been chartered to the Southern Pacific Rd., to run between New Orleans, La., and Havana, Cuba; and its str. Prince George to the Munson Steamship Co., to run between Mobile, Ala., and Havana, Cuba, during the winter.

The Maritime Board of Trade at its recent session reaffirmed its resolution in favor of government assistance to steel shipbuilding,

and urging that early action be taken by the government to grant the measure of assistance necessary to secure the resumption of work in the ship yards now idle, and to establish other shipbuilding plants in Canada.

Negotiations are in progress for establishing another ferry company to operate between Sydney and North Sydney, N.S. Options have been secured upon land for the terminals at both these points. It is proposed to have constructed two ferry steamers planned to take horses and vehicles in the centre, and passengers at the sides and on promenade deck.

The Dominion Government has made the following appointments to the pilotage authorities for the several districts named: Capt. H. LeMarchant, County of Richmond, N.S., succeeding the late Capt. S. Bouchie; E. Gillespie, secretary Parrsboro, N.S., Pilotage Commissioners, succeeding S. R. DeWolfe, resigned; J. T. Profit, Alberton, P.E.I., succeeding the late C. Morrison.

The Department of Marine has under consideration a project for the maintenance of a wrecking plant at North Sydney, N.S. A subsidy of \$10,000 a year has been offered by the department for the maintenance of a wrecking steamer and tender with up-to-date wrecking plant, including pumps, diving suits, anchors, chains, boats and other plant, together with the necessary skilled labor for the operation of the same.

The sailing packet which made its regular trips to ports on the Bay of Fundy, is making way for the small coasting steamer. Several of these routes have been served by steamers during the past couple of years with satisfaction. Another sailing packet—the Citizen, now on the route from St. John, N.B., to Bear River, Clementsport, and

other points in Annapolis Basin, is to be retired in favor of a steamer. The hull of the steamer has been launched at Shelburne, N.S., and engines are being installed at Yarmouth, N.S. Messrs. Clark, of Bear River, N.S., are the owners.

The Dominion Coal Co.'s new str. Christian Knudsen, and the str. Thrift, collided off Cape North, N.S., Sept. 12, the bow of each being stove in. The Coal Company's steamer was fully loaded, and some thousands of tons of coal were washed out, and she was in considerable danger of sinking before she reached Sydney. The Thrift, which was bound for Tilt Cove, Nfld., in ballast, was also considerably damaged, and put into Sydney for repairs. The repairs to the two steamers will cost about \$20,000. Actions have been entered by the owners of each steamer against the owners of the other for damages.

The Lake Freight Situation.

Our Winnipeg correspondent wrote on Sept. 15: "The Western crop is now assured as to bushels, although there may still be some damage by rains and it is generally conceded from what threshing returns have been received that the wheat crop will run in the neighborhood of 100,000,000 bushels, with other grains in proportion. The movement from the interior has been somewhat earlier this year than in past seasons owing to the extremely favorable weather during the last two weeks the crop was growing, and the movement towards the lake is already assuming very large proportions, and it is expected that the eastward movement over the lakes will also commence at least 10 days earlier than in the past.

"Canadian lake grain carriers have agreed

LIST OF STEAMSHIPS REGISTERED IN CANADA FROM AUG. 15 TO SEPT. 15.

Name.	No.	Where and When Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Amethyst	79,042	Stoetion-on-Tees, Eng., 1878	Screw — N.H.P.	240.2	32.0	16.7	1357	872	Halifax, N.S.	G. C. Cook, Halifax, N.S.
Ariel	121,673	Vancouver, B.C., 1905	" 3 "	40.0	8.2	3.6	12	8	Vancouver, B.C.	G. E. Bower, Vancouver, B.C.
Beaver	117,119	Vancouver, B.C., 1905	" 4 "	46.5	11.0	4.5	20	14	Vancouver, B.C.	A. M. Edwards, Vancouver, B.C.
Celt	116,666	Toronto, Ont., 1900	" 3 "	34.0	8.0	2.8	6	4	Midland, Ont.	A. Campbell, Midland, Ont.
Elsie	116,606	Georgetown, Que., 1905	" 4 "	37.4	9.0	3.3	7	5	Montreal, Que.	N. A. Beach, Georgetown, Que.
Gypsy	117,120	Vancouver, B.C., 1905	" 5 "	46.2	12.5	5.3	27	18	Vancouver, B.C.	B. C. Timber & Trading Co., Vancouver
Harold	116,719	St. Laurent, Que., 1905	" 1 "	31.4	9.4	3.2	7	6	Quebec, Que.	Hon. R. Turner, Quebec
Idle Hour	116,663	Midland, Ont., 1905	" 2 "	36.0	9.5	4.5	13	9	Midland, Ont.	M. Chew, Midland, Ont.
Swiftsure	121,675	Vancouver, B.C., 1905	" 2 "	35.0	8.3	3.5	8	5	Vancouver, B.C.	W. J. Massey, Vancouver, B.C.
Two Friends	100,627	Port Dover, Ont., 1905	" 9 "	52.3	13.0	5.0	23	16	Port Dover, Ont.	H. W. Ansley, Port Dover, Ont.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM AUG. 15 TO SEPT. 15.

Name.	No.	Where and When Built.	Rig.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Anna F.	117,028	Ingonish, N.S., 1905	Sloop	37.0	12.4	6.3	14	14	Sydney, N.S.	J. Brewer and J. Hawley, Ingonish, N.S.
B. No. 1	121,674	Vancouver, B.C., 1905	Barge	80.0	30.0	8.0	169	169	Vancouver, B.C.	A. R. Bissett, et al, Vancouver, B.C.
Edessa	121,800	Shelburne, N.S., 1905	Sloop	38.0	12.2	6.6	15	15	Yarmouth, N.S.	J. B. Clements, Yarmouth, N.S.
Edna L.	116,239	Rossway, N.S., 1905	Schr.	31.5	11.3	5.5	11	11	Digby, N.S.	K. H. A. Lewis, Rossway, N.S.
Etta N.	121,796	Cape Island, N.S., 1904	Sloop	31.0	11.4	6.0	10	10	Yarmouth, N.S.	J. G. Newell, Cape Island, N.S.
Florence D.	117,093	Port Felix, N.S., 1905	Schr.	36.0	12.0	5.8	11	11	Ariclat, N.S.	11. Dorion, Port Felix, N.S.
Fred C.	117,045	Clark's Harbor, N.S., 1905	Sloop	33.8	11.8	6.2	12	12	Barrington, N.S.	M. G. Nickerson, et al, Clark's Harbor, N.S.
Fredena	121,793	Cape Island, N.S., 1904	"	32.0	11.0	6.0	10	10	Yarmouth, N.S.	S. Hopkins, Cape Island, N.S.
Hattie and Ina	121,797	Shelburne, N.S., 1905	"	31.0	11.6	6.0	10	10	Yarmouth, N.S.	A. H. Perry, North West Harbor, N.S.
Jennette	116,665	Mt. Clements, Mich., 1881	Schr.	145.0	28.5	10.9	368	334	Midland, Ont.	The Morden Transit Co., Midland, Ont.
John L.	121,795	Tusket Wedge, N.S., 1905	Sloop	34.0	11.0	6.0	11	11	Yarmouth, N.S.	F. L. Pothier, Tusket Wedge, N.S.
Katie J.	111,795	West Arichat, N.S., 1905	Schr.	39.9	12.6	4.5	11	11	Pt. Hawkesbury	J. McNeil, Port Hawkesbury, N.S.
Kenneth S.	121,798	Clark's Harbor, N.S., 1904	Sloop	31.0	10.6	6.0	10	10	Yarmouth, N.S.	G. H. Smith, Clark's Harbor, N.S.
Kittie	116,240	U.S.A. 1891	Yawl	27.0	10.4	3.5	5	5	Digby, N.S.	A. E. Symons, Weymouth, N.S.
K. W. No. 3	117,151	New Westminster, B.C., 1905	Barge	41.0	18.0	4.5	35	34	N. Westminster, B.C.	G. C. McKean, New Westminster, B.C.
Mabel H.	116,533	Lunenburg, N.S., 1905	Schr.	37.2	21.4	8.6	64	64	Lunenburg, N.S.	D. Heisler, Lunenburg, N.S.
Mabel V.	121,799	Cape Island, N.S., 1904	Sloop	31.0	10.6	6.0	10	10	Yarmouth, N.S.	D. O. Smith, Cape Island, N.S.
Maggie Alice	117,094	Port Felix, N.S., 1905	Schr.	36.0	12.1	5.7	11	11	Ariclat, N.S.	P. Cashin, Port Felix, N.S.
Maggie & Esther	116,915	Port Mouton, N.S., 1905	"	42.0	12.0	5.0	11	11	Liverpool, N.S.	R. J. and S. H. Colp, Port Mouton, N.S.
Marie Joseph	116,718	La Petite Riviere, St. Francois Xavier, Que., 1905	"	63.0	19.6	5.6	40	40	Quebec, Que.	J. Bluteau, La Petite Riviere, Que.
Marie Louise	116,720	St. Fidele, Que., 1905	"	49.6	15.9	6.2	29	29	Quebec, Que.	J. Lavoie, St. Fidele, Que.
M. J. Butler	116,302	River John, N.S., 1901	Dr'dge	102.5	40.8	7.3	459	459	Charlottetown, P.E.I.	M. J. Hancey, Toronto
Moowesna	121,749	Port La Tour, N.S., 1904	Sloop	32.0	11.0	6.0	10	10	Yarmouth, N.S.	B. C. Crowell, Port La Tour, N.S.
Muriel G.	117,051	White Haven, N.S., 1905	Schr.	41.6	15.0	6.6	21	21	Canso, N.S.	A. Munroe, White Haven, N.S.
Olivia	112,065	Dunbarton, Scot., 1892	Barq.	220.7	35.0	21.0	1196	1138	Windsor, N.S.	D. Munroe, Windsor, N.S.
Speed	121,672	New Westminster, B.C., 1904	Scow	50.0	22.0	5.4	51	51	Vancouver, B.C.	J. R. Croll, New Westminster, B.C.
Sweetheart	116,534	Lunenburg, N.S., 1905	Schr.	44.2	13.6	6.2	15	15	Lunenburg, N.S.	W. R. Scaboyer, Lunenburg, N.S.
Twin Sisters	121,792	Shelburne, N.S., 1905	Sloop	31.0	11.0	6.0	10	10	Yarmouth, N.S.	S. Stephens, Cape Island, N.S.
Valmore	117,143	Mahone Bay, N.S., 1905	Schr.	42.8	12.3	5.6	11	11	Halifax, N.S.	L. Hubley, Indian Harbor, N.S.

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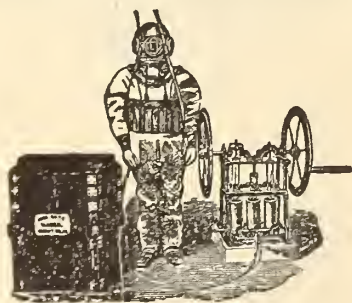
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on their rates for the fall months from Port Arthur and Fort William to Eastern lake ports as follows: From Sept. 16 to Oct. 15 to all Lake Huron and Georgian Bay ports, 2c. a bushel, and to Montreal 6½ c. a bush., and from Oct. 16 to Nov. 25 to Lake Huron and Georgian Bay ports, 2½c.; and to Montreal 7c., the Montreal rates in both cases, including marine insurance, but the shippers have the option of handling their own insurance, in which case the rate will be ¼c. less. The Canadian vessels had also agreed on rates to Buffalo and other Lake Erie ports at ¼c. over the Georgian Bay rates, but owing to the extent of the U.S. competition this season it was seen that such an arrangement would not be practical, and Buffalo rates were thrown out, leaving the rates to that port to be adjusted by competition. From the shipper's standpoint, the idea of having fixed rates is somewhat of an advantage, but on a crop the size of that now being harvested it also has its disadvantages, inasmuch as fully 80% of the crop will be for export and should U.S. routes be able to name lower through rates than those named by the Canadian channels, the former routes will get the business at the expense of the latter. U.S. vessels are now freely offered in Winnipeg at 2c. a bush. for all Oct. shipment from Port Arthur and Fort William to Buffalo.

"The coal movement to Port Arthur and Fort William from Lake Erie ports is now in full swing, and it is being about evenly divided between Canadian and U.S. vessels. The ore movement is still as heavy as it has been at any time during the season, although recent rains in Minnesota have somewhat delayed mining operations and resulted in somewhat of a blockade at Duluth.

"The steel rail movement from Sault Ste. Marie is still good, and is expected to keep up until the close of navigation. Rates on coal ore and railway iron have not changed since last report."

Province of Quebec Shipping.

The name of the str. *Arizona*, of Quebec, official number 100,595, has been changed to *Ruth*.

A temporary lighthouse has been erected at Macquereau Point, Que., pending the erection of a permanent structure to replace the one destroyed by fire Aug. 28.

The plant of the Quebec Steam Whaling Co., at Seven Islands, Que., was recently inspected by the Minister of Marine and Fisheries. The company, which only began operations at this point during the current year, was reported to have captured 23 whales up to Aug. 31.

Owing to the increasing volume of tourist travel on the St. Lawrence, the Richelieu and Ontario Navigation Co. is considering the desirability of placing orders for two new steamers one for the Toronto-Prescott and the other for the Montreal-Quebec routes. A number of alterations and improvements in the company's fleet are also contemplated, but the exact details have not been settled.

The passenger str. *White Star*, formerly running between Toronto and Oakville, Ont., and owned in Cornwall, Ont., was making a trip to Quebec recently, and while near Vercheres, Que., Sept. 6, collided with the str. *Hosanna*, owned by the Richelieu and Ontario Navigation Co., but under charter to the Dominion Government. The *Hosanna* sank in 23 ft. of water in five minutes, the crew and passengers being saved. An investigation was held by Commander Spain, and judgment reserved.

The Ogdensburg Coal and Towing Co.'s steam barge *Nicaragua*, carried away the

Canada Atlantic Ry. bridge across the Soulages canal at Coteau, Que., Sept. 12. The captain of the barge states that a green light was displayed indicating that the bridge was open, but when within a few yards of it he found it closed, and notwithstanding that full steam astern was ordered, the barge ran into the bridge. The canal was blocked practically to all traffic for several days, until the wreckage was cleared.

With the signing of the agreement with the Quebec Harbor Commissioners the Quebec Transportation Co. completed arrangements for despatching the first steamer from Quebec to London, Eng. Thos. Harling, Montreal, who has been active in promoting the enterprise, will probably be Managing Director of the company, when organization takes place, after the issuing of the charter. Pending the chartering or building of steamers the company temporarily chartered the str. *Sif*, and she left on her first trip Sept. 23.

Ontario and the Great Lakes.

The Department of Marine is being asked to erect a lighthouse on Batteaux Island, near Port Arthur.

The str. *Persia* went aground in the narrows near Brockville, Ont., Sept. 2, and was released on the following day without serious damage.

The str. *Antelope* has been sold by the Canada Carriage Co. to Smith's Falls, Ont., men. She will be run on the Rideau Canal between Smith's Falls and Portland.

The Rainy River Navigation Co. has sold its str. *Majestic* to R. Lockhart & Co. She will be used in future on Rainy Lake for excursion and towing purposes.

A tug was launched at Collingwood, Ont., Sept. 5, for J. McRae, and was named John McRae. Her dimensions are:—length, 68 ft.; breadth, 14 ft.; depth, 6 ft. 4 ins.

The tonnage passing through the Canadian and U.S. canals at Sault Ste. Marie, for Aug., was 6,327,195 tons, making the total for the season of navigation, 26,164,799 tons.

A contract is reported let at Collingwood for a steamer 150 ft. long, fitted for freight and passenger trade, for J. Perks. This steamer is to replace the *J. D. Hamill*, which has been sold.

The tug *James Norris* and a scow, owned by Haney & Davis, contractors, reached Kingston, Ont., from Charlottetown, P.E.I., Sept. 5, and were given an overhaul before proceeding to Toronto.

The str. *Canada*, as well as the other property of the King's Royal Park Co., Owen Sound, Ont., was sold Aug. 29. The steamer was sold to Jas. McLachlan, who had a \$3,300 mortgage on it, for \$3,150.

The three motor boats seized at Brockville, Ont., for disregarding the Steamboat Inspection Act, in failing to carry proper lights after sundown, have been released, pending the decision of the Department of Marine.

Haney & Miller, Toronto, are having built at Collingwood, Ont., a tug for use in connection with their contracts at Toronto. The tug will be 52 ft. long, 14 ft. breadth, and 7 ft. deep, and will be fitted with engines now in another tug.

G. Durnan, who was lighthouse keeper at the Island, Toronto, from 1853 until the present season of navigation, was decorated recently with the Imperial Service medal, by the Lieut.-Governor of Ontario, on behalf of the King.

The U.S. str. *Dorothy*, which carried a cargo of dynamite from Wilmington, Del., to Hough-

ton, Mich., and collided with the Canadian str. *W. J. Plummer*, in the St. Lawrence, has been libelled at St. Catharines, Ont., in connection with a suit for damages.

The fisheries protection cruiser *Vigilant* captured the U.S. fishing tug *Bertha I. Cockell*, of Erie, Pa., Sept. 12, fishing in Canadian waters, and a few days later fired on and damaged another Erie tug, which was fishing over the boundary.

Work is reported to be progressing satisfactorily upon the construction of the new steamer for the Niagara Navigation Co., the keel for which was recently laid in the yard formerly owned by the Bertram Engine Works Co., and now by the Canadian Shipbuilding Co.

Recent reports stated that a big leakage had been discovered in the concrete work of the lift lock on the Trent Valley Canal at Kirkfield, Ont. An investigation was made and the damage repaired at a cost of \$200. The work of erecting the steel work is being proceeded with.

The str. recently launched at Toronto for the Canadian Towing and Wrecking Co., Port Arthur, Ont., has been named the *James Whalen*. She is to be used for harbor work, in towing and wrecking, ice breaking and general all-round work. The engines will develop 750 h.p.

Owing to the picking up of some wreckage bearing the name *Osceola*, a report was circulated that the Hamilton str. *Golspie*, which was last year known under that name, had been wrecked, during a heavy storm in Lake Huron, Sept. 5. The report proved to be unfounded, as the *Golspie* reached Sault Ste. Marie, Sept. 6.

A proposal for the construction of a canal through the upper peninsula of Michigan, to connect Lake Michigan and Lake Huron, is being talked about. The suggestion is to utilize Manistique Lake, and Manistee River. By the suggested route there would be a saving of about 300 miles between ports on the south shore of Lake Superior and Lake Huron points in comparison with the present route via Sault Ste. Marie.

The O'Connor Steamboat and Hotel Co. has been incorporated under the Ontario Companies' Act with a capital of \$150,000 and offices at Temagami, Ont., to carry on a general navigation and hotel business. The provisional directors are D. O'Connor, M. A. O'Connor, Temagami; and R. McKay, Toronto. D. O'Connor owns some steamers on Lake Temagami, and has built an hotel there for the development of the tourist traffic.

A contract has been placed in the U.S. for a car ferry steamer to operate between Ashtabula, Ohio, and Port Burwell, Ont. The car will have four tracks, with a capacity for the transfer of 30 cars, 100,000 lbs. capacity. It will be equipped with engines capable of propelling the ferry at the rate of 12 miles an hour. The ferry will be owned and operated in connection with the Pennsylvania Lines, West, and the C.P.R.'s Tillsonburg, Lake Erie and Pacific branch, and by the coal operating firm of J. W. Ellsworth & Co.

The International Waterways Commissioners met at Buffalo, N.Y., Sept. 11, and discussed future plans. They subsequently made an inspection of the harbor and had a trip on Niagara River, visiting the Welland Canal on the following day, and the Niagara River below the falls on Sept. 13 and 14. On Sept. 15, the Commissioners opened their sittings at Toronto, and heard statements from representatives of the Board of Trade and other public bodies as to water levels in Lake Ontario, etc. The Commissioners also held sittings at Hamilton.

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The str. Melbourne, trading between Hamilton and Montreal, calling at various other ports, was burned to the water's edge and sank near the entrance of the Murray canal Sept. 20. The traffic in the canal was almost entirely blocked by the wreckage. The steamer, which was owned by the Melbourne Steamship Co., Ltd., Montreal, was operated by C. A. Jaques, Montreal. She was a screw steamer of 54 horse power, built at Port Stanley, Ont., 1893, her dimensions being: length, 179.6 ft.; breadth, 26 ft.; depth, 11.3 ft.; tonnage—gross, 894 tons; register, 540 tons.

It is not quite right, we have been informed, to state that the reciprocal inspection arrangements between Canada and the United States are in an unsatisfactory condition. On the contrary the arrangements made this year were exceedingly satisfactory, and the discussion that has recently taken place in regard to them merely brings out the point that they may, like most things, be improved. The principal objection raised at present is that an inspection is made on one side of the line and the certificates granted, and that thereafter, while the vessel is supposed to be subject to no further inspection in the other country, except such as is necessary to satisfy the Inspector that the condition of her boilers and life-saving equipment is as stated in the first certificate, the result of the arrangement is that in certain cases, depending upon the construction the Inspector may place upon the law, the vessel is really subjected to a complete reinspection at a cost of considerable time and trouble. The definite advantage that has been gained is that each vessel need only comply with the actual requirements of her own country. A point in which improvement may be made is that the certificate granted in the first instance might possibly be accepted without further scrutiny. This would save a good deal of trouble to the vesselmen. Objection has also been raised that, on account of the variance in the rules of Canada and of the United States regarding passenger accommodation, the present arrangement gives an advantage to U.S. passenger steamers over those of Canadian registration coming in competition with them.

Manitoba and the Northwest Territories.

News has reached St. John's, Nfld., to the effect that the Hudson's Bay Co.'s str. Pelican has broken her rudder, while on her annual voyage from Hudson Bay posts to London, Eng.

A Selkirk, Man., paper referring to the state of the Red River at the point entering Lake Winnipeg, says it is well known that steamboats and barges have been coming in with light loads all summer, which alone is a very great loss, and they have had to remain at the mouth frequently for a whole day on account of low water. It is further stated that a little work every year would keep a good clear channel in the old route, and that this is the fourth year the Dominion Government has been spending money on what is described by the paper as an "imaginary channel."

Mails from the Dominion Government patrol str. Arctic, dated Aug. 18, have reached Canada, having been brought to St. John's, Nfld., by a British man-of-war. The Arctic had left Hudson Bay to meet the str. Neptune, which left Halifax, N.S., in Aug. with supplies, and was cruising in Ungava Bay, when the man-of-war was sighted. The Neptune was detained at St. John's Nfld., for some weeks owing to some question between the Department of Marine and the Mounted Police Department at Ottawa, as to the control of the steamer. The Arctic, on Sept. 13, was reported at Chateau Bay, opposite Belle Isle, with machinery disabled.

B.C. and Pacific Coast Shipping.

The name of the str. Queen of the Pacific, of Vancouver, B.C., official number 116,465, has been changed to Claxton.

The New England Fish Co. is having a steam trawler built at Philadelphia, Pa., for its halibut fishery in the North Pacific.

The Government str. Georgia lost a blade of her propeller Sept. 13, by striking a snag in Fraser River, near New Westminster, B.C.

A report is current that a company of Victoria men are arranging to put another steamer on the Victoria-Port Townsend-Seattle run.

The C.P.R., since it acquired the Esquimalt and Nanaimo Ry., has re-arranged the schedule of the str. Joan, so that she will call at Ladysmith on the trip both to and from Vancouver.

The steamer which the C.P.R. is building at Nelson, B.C., for the Nelson-Kootenay Landing run, is being constructed of wood, 185 ft. long, 29 ft. broad, and 7 ft. deep. She will be a stern-wheeler.

The Indians of Valdez Island have constructed the hull of a steamer 70 ft. long, which has been taken to Victoria to be fitted with boilers and machinery. The builders of the steamer were given their training at the Indian industrial school, Cowichan, B.C.

Dr. W. B. Dawson, of the Tidal Survey branch of the Department of Marine, has been spending some time at Victoria, B.C., in connection with the investigation of the tides on the west coast of Vancouver Island. Some new observation stations are being established on the coast.

The str. Pheasant has been purchased by Capt. Magar, her former owner. He will take command and O. Brown, who has been in charge for the past two years, has been appointed mate, J. McInnes remaining as chief engineer. The Pheasant trades between Vancouver and Skeena River points.

Col. Anderson, Chief Engineer of the Department of Marine, Ottawa, spent some considerable time during Sept. inspecting existing lighthouses and aids to navigation on the Pacific Coast. He is also arranging for the erection of a number of new lighthouses, and buoy stations. The most important of the new lighthouses will be erected at the southern extremity of Trial Island.

The schooner Carmencita, which held a provisional registry at San Francisco for a voyage to Acapulco, Mexico, did not go there, but went on a sealing expedition, and was seized at Victoria, B.C., by the customs authorities and fined \$1,600. On payment of the fine the vessel was released, but was subsequently seized under an admiralty warrant for wages due certain members of the crew.

The Canadian schooner Agnes Donohue which was seized by the Government of Uruguay, on a charge of poaching seals, has been released.

An action has been instituted by the C.P.R. against W. D. Reid, Vice-President Reid Newfoundland Co., arising out of the stranding of the C.P.R. Atlantic steamship Montclair, in July, 1903. The steamer carried a large number of cattle, which were thrown overboard when she stranded, and of these over 800 swam to Langley Island, off the Newfoundland coast near Miquelon. An agreement was made on behalf of all interested parties and Mr. Reid, and a large number were removed and paid for. The C.P.R. claims \$6,360 as the value of the remaining cattle, which it is alleged were left on the island at Mr. Reid's risk.

Among the Express Companies.

Mrs. M. E. Sharpe, mother of H. P. Sharpe, General Agent Dominion Ex. Co., Toronto, died at London, Ont., Sept. 1.

The Canadian Ex. Co. proposes to erect an office and warehouse in the G.T.R. yards at Hamilton, Ont., at a cost of \$5,000.

W. S. Stout, President and General Manager Dominion Ex. Co., returned to Toronto Sept. 23, from a trip to Manitoba and other western points. He was accompanied by Mrs. Stout, Miss H. Stout and W. S. Stout, Jr.

Owing to the heavy harvest in Manitoba, Saskatchewan and Alberta, there has been a great demand for reapers, and the Dominion Ex. Co. carried quite a number at express rates, the purchasers not being able to wait until delivery could be made by freight train.

J. B. Prentiss, for 20 years Superintendent of the Western New York and Eastern Pennsylvania division of the American Ex. Co., died at Rochester, N.Y., Aug. 27, aged 73. Prior to becoming a route agent in 1865, he had a run between Rome and Cape Vincent, N.Y., and Kingston, Ont.

The annual financial statement of the Expressmen's Mutual Benefit Association for the year ended June 30, 1905, showed receipts of \$119,715.00 and expenses of \$72,704.95. The assets amount to \$164,201.10, and the liabilities are: net reserve, American Experience table and 3%, \$144,585; death claims, proofs not completed, \$7,000; leaving a surplus of assets over liabilities of \$12,616.10. The Association has 2,561 certificates in force, representing a total insurance of \$3,245,500.

Telegraph and Cable Matters.

The Halifax-Bermuda Cable Co. proposes paying a further dividend of 2½%, making 5% for the year ended June 30, 1905.

The Canadian Northern Telegraph Co. has extended its lines to Lloydminster, Sask., and has opened a commercial office there.

Miss M. G. Earle, daughter of W. E. Earle, manager of the Western Union cable office at North Sydney, N. S., was married there, to E. J. Mabon, of Winnipeg, Aug. 23.

The cable str. Colonia was placed in the dry dock at Halifax, N.S., after being towed off the reefs near Canso, and repaired, resuming her cable laying work at the end of Sept.

The Commercial Cable Co. has increased its capital from \$12,000,000 to \$15,000,000. It is proposed to extend its cables from Manila, in the Philippine Islands, to Shanghai, China.

Signals by Marconi wireless telegraphy have passed between the Dominion Government station on Sable Island, N.S., and the German liner Kaiser Wilhelm der Grosse, when the latter was 650 miles out at sea.

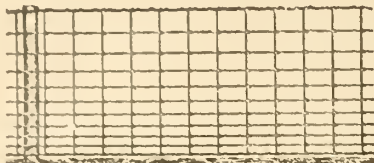
The Marconi Wireless Telegraph Co. is erecting a telegraph station at Partridge Island, N.B. The tower will be 180 ft. high, and will be erected on the highest point of the island. This is one of the stations for the Dominion Government.

The laying of the new cable from Canso, N.S., to Port Aux Basques, Nfld., for the Newfoundland Government, has been completed. The cable is being operated by the Commercial Cable Co., and through it the C.P.R. Telegraph lines are given a connection with the island colony.

J. G. Ridout, Toronto; C. Thompson, Montreal, and H. Aylen, K.C., Ottawa, have been appointed arbitrators to decide on a question of priority of invention of wireless signalling in connection with wireless telegraphy. The persons interested in the inventions are Sir O. Lodge, Dr. Del'forest and R. A. Fessenden.

A British parliamentary paper states that during the first three months of the current

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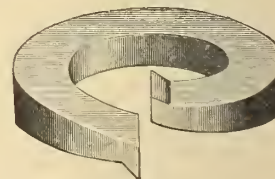
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MENTS

year 1,766 wireless telegraph messages were handled by the post office telegraph system. Of these, 1,655 were received from ships at sea, and 111 were received from the general public for transmission to ships at sea. Of the messages handled only 21 could not be delivered.

At the annual convention of the Old Time Telegraphers' Association and other telegraph officers' associations in New York, Aug. 29 and the following days, there were present from Canada:—W. J. and Mrs. Camp, J. Horn, Mrs. L. B. McFarlane, Thos. and Mrs. Rodger, F. H. and Mrs. Waycott, W. P. and Mrs. Powell, Montreal; G. F. Macdonald and niece, Ottawa; I. Mrs. and Miss McMichael, Toronto.

The United Empire Club, London, Eng., has re-issued Sir Sandford Fleming's paper advocating a free press service over the Pacific cable. The Canadian Government has asked the British and Australian Governments to approve of this, as it could be arranged without adding anything to the working expenses. At present it is pointed out all the commercial messages could be despatched in three hours per day.

Judgments have recently been given by Judge Barron at Stratford, Ont., and by Judge Dowling at Chatham, Ont., in appeals by the G.N.W. Telegraph Co., and the C.P.R. in regard to the assessment of telegraph lines under the new Assessment Act. The Stratford judgment decided that the companies were not liable for business tax and that if anyone were to be assessed it should be the local agent. Under the Chatham judgment it was held that the company and not the agent was assessable.

General Telephone Matters.

The Bell Telephone Co. has over 5,000 subscribers at its Winnipeg exchange.

The Ontario Telephone Co. is reported to be preparing to submit an offer to the Brantford, Ont., City Council to instal a system there.

The Bell Telephone Co. has purchased the independent telephone line between Bancroft, Coehill, Madoc, Eldorado and Marmora, Ont.

The Bell Telephone Co. is publishing in various daily papers a series of telephone talks addressed to telephone users and the general public.

The Valley Telephone Co., Middleton, N.S., is equipping its offices with blue and white enamelled iron signs, supplied by the Acton Burrows Co., Toronto.

The Bell Telephone Co. has completed a metallic circuit between Newmarket and Sutton, Ont., thus giving a connection between the latter point and Toronto.

The terms of the agreement between the Vancouver City Council and the B.C. Telephone Co. have been approved, and the document prepared for signature.

G. McDonald, formerly with the Nova Scotia Telephone Co., has been appointed Superintendent of Equipment for the Telephone Co. of Prince Edward Island at Charlottetown.

The Bell Telephone Co. has opened general offices at St. Thecle, Lake St. Joseph, Piedmont, and Woodlands, Que. It has also completed a metallic line between Montreal and St. Jerome, Que.

The Bell Telephone Co. has completed a copper metallic line from Doucet's Landing to Nicolet, Que., and has converted its grounded circuit from St. Hyacinthe to Yamaska West, Que., to a metallic circuit, and extended it to Sorel, Que.

The Bell Telephone Co. has completed its long distance line from Toronto to Collingwood, Ont.; and is extending the long distance line from Huntsville to North Bay,

Ont. It contemplates building a line from North Bay to Sturgeon Falls.

Sir Wm. Mulock, chairman of the House of Commons Telephone Committee, stated Sept. 13 that the enquiry would be resumed next year, and it was hoped to reach a conclusion at a sufficiently early stage to admit of legislative action during the next session.

The Commissioners of the Temiskaming and Northern Ontario Ry. are establishing a circuit line telephone system between North Bay and Temagami, and another between North Bay and New Liskeard, Ont. The instruments, etc., are being supplied by the Bell Telephone Co.

In connection with the construction of a telephone line between Nicola and Penticton, B.C., an interesting fact may be mentioned, namely, that about three miles of cable used to connect Kelowna with the line on the west side of the lake is a portion of the old Atlantic telegraph cable.

The Bell Telephone Co. proposes to erect a \$40,000 building in Brantford, Ont., and to instal a central energy system. At a meeting held Sept. 11, the City Council declined to grant the company an exclusive franchise for three years at \$800 a year, and a reduction of the rates on instruments rented for city purposes.

A conference of representatives of independent telephone companies and of municipalities favoring municipal ownership, was held in Toronto Sept. 6 and 7. An association was formed with the title of the Canadian Independent Telephone Association, the following being elected officers: President, A. Hoover, Green River; Vice-President, F. D. McKay, Peterboro; Secretary-Treasurer, A. F. Wilson; executive committee, Dr. Demers, Levis, Que.; Dr. Doan, J. A. Sprague, Demorestville, Ont.; T. H. Eastabrooks, St. John, N.B.; Dr. Oches, Hespeler, Ont.; E. Vigers, Port Arthur, Ont.; Dr. Hart, Brantford; L. Moyer, Beamsville, Ont.; C. J. Thornton, Kerby, Ont.

Telephone Companies in New Brunswick.

The Bell Telephone Co. about 1885 opened up a telephone business in New Brunswick, at the more important centres, but subsequently withdrew, handing over its lines to the Nova Scotia Telephone Co. in 1887. In 1888 the New Brunswick Legislature passed an act incorporating the New Brunswick Telephone Co., granting it an exclusive franchise for 10 years, and giving it power to construct a line from St. John, via Fredericton, to Woodstock; from St. John to Moncton, and from St. John to St. Stephen's via St. Andrew's. Under this act a central system was started in Fredericton and other points, with the result that the Nova Scotia Telephone Co. sold out its New Brunswick business to the local company. The capital of the company was fixed at \$100,000 in 2,000 shares of \$50 each. As a result of the taking over of the interests of the Nova Scotia Telephone Co., C. F. Sise of the Bell Telephone Co. became a shareholder of the New Brunswick Telephone Co. The consideration paid for the Nova Scotia Telephone Co.'s interest was \$50,000, of which one-half was paid in cash, and 500 fully paid-up shares were allotted to cover the balance. The lines taken over included exchanges in St. John, Fredericton, Moncton and Woodstock, with about 20 miles of long distance lines from Moncton. At that time there were 374 subscribers in St. John, 108 in Fredericton, 81 in Moncton and 32 in Woodstock.

Since then the capital of the company has been increased to \$204,050, of which \$69,100 is held by the Bell Telephone Co. The total authorized capital is now \$600,000, and there is a bond issue of \$100,000. The company now has exchanges at St. John, with 1,761 subscribers; Fredericton, 385 subscribers; Mon-

ton, 350 subscribers; Woodstock, 209 subscribers; St. Stephen's, 127 subscribers; Dorchester, 25 subscribers; Grand Falls, 11 subscribers. In 1902 a new building was erected at St. John fitted with a central energy system, at a cost of about \$120,000. At St. Stephen's connection is made with the New England Telegraph and Telephone Co., of Boston, Mass.; connection is also made with the Nova Scotia Telephone Co.; the Central Telephone Co.; the Sackville Telephone Co.; the Miramichi Telephone Co.; the Buctouche Telephone Co., and the Stanley Telephone Co. These connections are merely for the exchange of business, the rural or farmers' lines not being up-to-date. The company has two metallic copper lines from St. John to Fredericton, without intermediate instruments; two metallic copper lines from St. John to Moncton; one metallic copper line from Fredericton to Edmundston; one metallic copper line and one metallic iron wire no. 9 from Fredericton to Chatham. The company has a trunk line from St. John to the Nova Scotia boundary, and it is contemplated to extend the lines to give connection with Quebec lines. The policy of the company has been to construct trunk lines, and to give connection to the rural lines, and all other companies when they desire to have it, with the exception of the one case at Woodstock, where the Union Telephone Co. does business. The N.B.T. Co. does not guarantee the service over the rural lines, because they are filled with instruments having short distance, and it is impossible to have a successful telephone conversation for any distance over lines that are loaded with intermediate telephones and particularly single line wires, as they are susceptible to all sorts of interruptions.

The Union Telephone Co. was established in 1902, and operates a system in York, Carleton and Victoria counties. The system consists of party lines connected at convenient points by switches; some single wire or ground lines, about one-half metallic wires. The company has an automatic exchange in Woodstock. There are about 350 miles of line on which there are 200 subscribers. These are party lines with from 10 to 26 instruments on one line. One of the lines is 65 miles in length or, with some spurs, 70 miles of wire, and on this line there are 26 subscribers. Such a line would cost, including instruments, calculating one to every two miles of wire, \$140 a mile. The subscribers on this line pay \$25 a year for business men and \$15 a year for farmers; on other lines a metallic circuit line is rented at \$15, and a single wire line at \$12 an instrument a year. For this the subscribers can talk all they want to on their own line, but if they want to call up anyone on another line a switching charge of 10c. a call is made. The farmers very rarely require to make such a call, but the business men frequently do. The company has an automatic exchange in Woodstock, where there are 113 subscribers. The charge is \$15 for business instruments, and \$10 for residence instruments. The total income for the last financial year was \$6,871.78, and the expenses \$1,830.01; the dividends paid were \$2,898.04, and \$2,143.73 was spent on improvements and further developments.

The Central Telephone Co. obtained a charter from the N.B. Legislature in 1904, and has about 200 miles of rural lines. It recently acquired the rights of the New Brunswick Telephone Co. in Hampton. The Central Co. has established local exchanges at Richibucto, Bathurst and Campbellton, N.B. It has also acquired the stock of the Miramichi Telephone Co., which operated a line from Nelson to Tracadie, N.B. It has also acquired a number of local lines and proposes to connect them up. Extensions will be made with a view of giving connection with Montreal and Gaspé, Que.

The other lines are all small, and there are some mutual companies, of which that operated by M. Walsh is the principal.

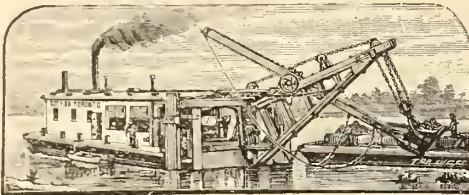
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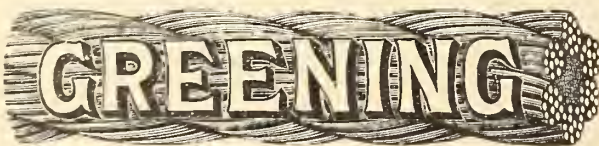
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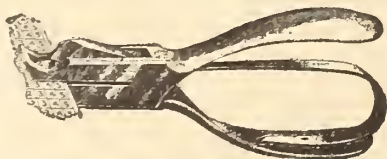


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(Continued from third page of cover.)

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(Continued on page 502.)

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(Continued from page 501.)

- Launches**
Polson Iron Works.....Toronto.
- Lights, Contractors' and Wrecking**
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
- Lithographing**
Rolph & Clark (Ltd.).....Toronto.
- Locomotive Boiler Washer, Automatic**
Erie Heating Co.....Chicago, Ill.
- Locomotive Driver Brake Shoe**
American Brake Shoe & F'dry Co., Mahwah, N.J.
- Locomotive Lagging and Covering**
Canadian Fairbanks Co.....Montreal.
- Locomotives (Compressed Air)**
Baldwin Locomotive Works.....Philadelphia, Pa.
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.
- Locomotives (Electric)**
Baldwin Locomotive Works.....Philadelphia, Pa.
Canada Foundry Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.
- Locomotives (Logging)**
Canadian Locomotive Co.....Kingston, Ont.
Lima Locomotive and Machine Co., Lima, Ohio.
- Locomotives (Rack)**
Baldwin Locomotive Works.....Philadelphia, Pa.
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.
- Locomotives (Steam)**
Baldwin Locomotive Works.....Philadelphia, Pa.
Canada Foundry Co.....Kingston, Ont.
Canadian Locomotive Co.....Kingston, Ont.
F. M. Hicks & Co.....Chicago, Ill.
F. H. Hopkins & Co.....Montreal.
The W. H. Kelson Co.....Montreal.
Lima Locomotive and Machine Co., Lima, Ohio.
Locomotive and Machine Co. of Montreal.
- Locomotive Stack Netting**
The G. B. Meadows Wire, etc., Co.....Toronto.
- Machine Tools**
W. Abbott.....Montreal.
Canadian Fairbanks Co.....Montreal.
H. W. Petrie.....Toronto.
Williams & Wilson.....Montreal.
- Machine Screws, Set Cap and Planer**
John Morrow Machine Screw Co.....Ingersoll.
- Machinery, Marine**
Sheriffs Mfg. Co.....Milwaukee, Wis.
- Machinery Repairs, Marine**
Sheriffs Mfg. Co.....Milwaukee, Wis.
- Manganese Steel Castings**
Montreal Steel Works.....Montreal.
- Manhole Frames and Covers**
American Brake Shoe & F'dry Co., Mahwah, N.J.
- Maps**
Rolph & Clark (Ltd.).....Toronto.
- Marine Insurance**
Dale & Co.....Montreal.
- Mats and Matting**
The Canadian Rubber Co. of Montreal.
- Milepost Numbers**
Acton Burrows Co.....Toronto.
- Milling Cutters**
W. Abbott.....Montreal.
Williams & Wilson.....Montreal.
- Milling Machines**
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.
- Mills, Boring and Turning**
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.
- Mill Tools and Supplies**
J. A. Dawson & Co.....Montreal.
- Nickel**
The Orford Copper Co.....New York.
- Nickel for Nickel Steel**
The Orford Copper Co.....New York.
- Numbers**
Acton Burrows Co.....Toronto.
- Nuts, Cold Pressed**
John Morrow Machine Screw Co.....Ingersoll.
- Nuts, Square and Hexagon**
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.
- Oakum**
The Hudson's Bay Company.....
- Office Desks**
Canadian Office & School Furniture Co., Preston, Ont.
- Office Fittings**
Canadian Office & School Furniture Co., Preston, Ont.
- Office Railings**
The G. B. Meadows Wire, etc., Co.....Toronto.
- Office Signs**
Acton Burrows Co.....Toronto.
- Oils**
Galena Signal Oil Co., Franklin, Pa., and Toronto.
- Packing**
The N. L. Piper Railway Supply Co.....Montreal.
Williams & Wilson.....Montreal.
- Packing, High Pressure Sheet**
The Canadian Rubber Co. of Montreal.
- Packing, Piston**
The Canadian Rubber Co. of Montreal.
- Paints, Acid Proof and Anti-rust**
American Asphaltum & Rubber Co.....Chicago, Ill.
- Paints, Asphaltum**
American Asphaltum & Rubber Co.....Chicago, Ill.
- Paints, Bridge**
American Asphaltum & Rubber Co.....Chicago, Ill.
- Paints, Locomotive Front end**
American Asphaltum & Rubber Co.....Chicago, Ill.
- Paints, Mineral Rubber**
American Asphaltum & Rubber Co.....Chicago, Ill.
- Paints, Structural Iron**
American Asphaltum & Rubber Co.....Chicago, Ill.
- Pinch Bars**
The N. L. Piper Railway Supply Co.....Toronto.
- Pipe**
Erie Heating Co.....Chicago, Ill.
- Pipe and Pipe Coverings**
W. C. Baker.....New York.
- Pipe Covering**
Canadian Fairbanks Co.....Montreal.
Mica Boiler Covering Co.....Montreal.
- Planers**
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.
- Ploughs, Contractors'**
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.
- Pneumatic Tools**
N. J. Holden & Co.....Montreal.
- Porter**
E. L. Drewry.....Winnipeg.
- Portable Boilers**
Babcock & Wilcox (Ltd.).....Montreal.
Canada Foundry Co.....Toronto.
Robb Engineering Co.....Amherst, N.S.
- Portland Cement**
Thorn Cement Co.....Buffalo, N.Y.
- Power Plants, Contractors'**
Erie Heating Co.....Chicago, Ill.
- Printing**
The Hunter, Rose Co.....Toronto.
The Mail Job Printing Company.....Toronto.
- Propeller Wheels**
W. Kennedy & Sons (Ltd.).....Owen Sound, Ont.
Sheriffs Manufacturing Co.....Milwaukee, Wis.
- Pumps**
Canadian Fairbanks Co.....Montreal.
Canada Foundry Co.....Toronto.
Erie Heating Co.....Chicago, Ill.
Goold, Shapley & Muir Co.....Brantford, Ont.
- Pumps (Centrifugal)**
M. Beatty & Sons.....Welland, Ont.
- Punches**
F. J. Myers Mfg. Co.....Hamilton, Ohio.
- Punching and Shearing Machines**
The John Bertram Sons Co.....Dundas, Ont.
- Rail Benders, Roller**
Montreal Steel Works.....Montreal.
- Rails (new)**
Drummond, McCall & Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.
- Rails (for relaying)**
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.
T. A. Morrison & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.
- Railway Equipment**
F. M. Hicks & Co.....Chicago, Ill.
- Railway Interlocking**
General Railway Signal Co.....Buffalo, N.Y.
- Rail Joints**
N. J. Holden & Co.....Montreal.
- Railway Pile Drivers**
W. H. C. Mussen & Co.....Montreal.
- Railway Signalling**
General Railway Signal Co.....Buffalo, N.Y.
- Railway Supplies**
J. A. Dawson & Co.....Montreal.
Canadian Fairbanks Co.....Montreal.
The W. H. Kelson Co.....Montreal.
The N. L. Piper Railway Supply Co.....Toronto.
- Reamers**
W. Abbott.....Montreal.
- Refrigerators**
Geo. R. Prowse.....Montreal.
- Rivets, Boiler, Bridge and Structural**
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.
- Rolled Wheels**
Standard Steel Works.....Philadelphia, Pa.
- Rolls, Plate Bending**
The John Bertram Sons Co.....Dundas, Ont.
- Roof Trusses**
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
- Roofing Composition**
American Asphaltum & Rubber Co.....Chicago, Ill.
- Roofing Pitch**
American Asphaltum & Rubber Co.....Chicago, Ill.
- Roofing, Ready**
American Asphaltum & Rubber Co.....Chicago, Ill.
- Roofs, Car**
American Asphaltum & Rubber Co.....Chicago, Ill.
- Rope**
The Hudson's Bay Co.....
- Rotary Snow Ploughs**
Crossen Car Mfg. Co.....Cobourg, Ont.
- Rubber Tiling, Interlocking**
The Canadian Rubber Co. of Montreal.
- Saw Steel**
Montreal Steel Works.....Montreal.
- Scrapers (Wheel and Drag)**
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.
- Screws, Coach and Lag**
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.
- Semaphore Arms**
Acton Burrows Co.....Toronto.
- Semaphores**
The N. L. Piper Railway Supply Co.....Toronto.
- Sewer Pipe (Cast Iron)**
Gartshore-Thompson Pipe & F'dry Co., Hamilton.
- Shaking Grates**
Babcock & Wilcox (Ltd.).....Montreal.
- Shaping Machines**
The John Bertram Sons Co.....Dundas, Ont.
- Ship Lamps**
The N. L. Piper Railway Supply Co.....Toronto.
- Ships**
Polson Iron Works.....Toronto.
- Shovels**
F. H. Hopkins & Co.....Montreal.
The Hudson's Bay Co.....
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Simplex Railway Appliance Co.....Montreal.
- Signal House Numbers**
Acton Burrows Co.....Toronto.
- Signals**
General Railway Signal Co.....Buffalo, N.Y.
N. L. Piper Railway Supply Co.....Toronto.
- Signs**
Acton Burrows Co.....Toronto.
- Slack Adjusters**
Chicago Railway Equipment Co.....Chicago, Ill.
- Slotting Machines**
The John Bertram Sons Co.....Dundas, Ont.
- Snow Ploughs**
Crossen Mfg. Co.....Cobourg, Ont.
Rhodes, Curry & Co.....Amherst, N.S.
- Specialties in Brass and Iron Wire**
The G. B. Meadows Wire, etc., Co.....Toronto.
- Speedicut High Speed Steel**
Montreal Steel Works.....Montreal.
- Spikes, Railway, Ship or Pressed**
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.
- Springs**
Montreal Steel Works.....Montreal.
Standard Steel Works.....Philadelphia, Pa.
- Station and Tower Heaters**
W. C. Baker.....New York.
- Stationery**
Rolph & Clark (Ltd.).....Toronto.
- Station Name Signs**
Acton Burrows Co.....Toronto.
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- Steam Couplers**
Safety Car Heating and Lighting Co.....New York.
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F. H. Hopkins & Co.....Montreal.
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Acton Burrows Co.....Toronto

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Sheriffs Mfg. Co.....Milwaukee, Wis.

Steel

W. Abbott.....Montreal.
F. H. Hopkins & Co.....Montreal.
Wm. Jessop & Sons.....Sheffield, Eng.
Williams & Wilson.....Montreal.

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Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.

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W. H. C. Mussen & Co.....Montreal.

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Jas. W. Pyke & Co.....Montreal.

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Babcock & Wilcox (Ltd.).....Montreal.

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Canada Foundry Co.....Toronto.
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Dominion Bridge Co.....Montreal.
Locomotive and Machine Co. of Montreal.
Jas. W. Pyke & Co.....Montreal.

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Babcock & Wilcox (Ltd.).....Montreal.

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Montreal Steel Works.....Montreal.

Switch Lamps

The N. L. Piper Railway Supply Co.....Toronto.

Switch Ropes

The B. Greening Co.....Hamilton, Ont.

Switch Targets

Acton Burrows Co.....Toronto.

Tanks and Tank Fixtures

Canada Fairbanks Co.....Montreal.
Canada Foundry Co.....Toronto.
Goold, Shapley & Muir Co.....Brantford, Ont.
Ontario Wind Engine and Pump Co.....Toronto.

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Time Table Racks

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Montreal Steel Works.....Montreal.

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F. H. Hopkins & Co.....Montreal.
Montreal Steel Works.....Montreal.
W. H. C. Mussen & Co.....Montreal.
A. O. Norton.....Coaticook, Que.

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F. H. Hopkins & Co.....Montreal.
Montreal Steel Works.....Montreal.
W. H. C. Mussen & Co.....Montreal.

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Crossen Car Mfg. Co.....Cobourg, Ont.

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J. J. Gartshore.....Toronto.

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Montreal Steel Works.....Montreal.

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Toronto Pressed Steel Co.....Toronto.

Turbine Waterwheels

W. Kennedy & Sons (Ltd.).....Owen Sound, Ont.

Turnbuckles

Montreal Steel Works.....Montreal.

Turntables

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Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.

Underwriters

Dale & Co.....Montreal.

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Kerr Engine Co.....Walkerville, Ont.

Valves, Brass Globe

Kerr Engine Co.....Walkerville Ont.

Valves, Iron and Brass

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Canadian Fairbanks Co.....Montreal.

Valves, Iron Gate

Kerr Engine Co.....Walkerville, Ont.

Valves, Rubber

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Toronto Pressed Steel Co.....Toronto.

Wheels, Car

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Jas. W. Pyke & Co.....Montreal.
Rhodes, Curry & Co.....Amherst, N.S.
Standard Steel Works.....Philadelphia, Pa.

Wheels, Locomotive

John McDougall & Co.....Montreal.

Wheels, rolled, solid forged

Standard Steel Works.....Philadelphia, Pa.

Wheels, steel tired

Standard Steel Works.....Philadelphia, Pa.

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Ontario Wind Engine and Pump Co.....Toronto.

Wire and Wire Rope

Dominion Wire Rope Co.....Montreal.
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W. H. C. Mussen & Co.....Montreal.
The Wire and Cable Co.....Montreal.

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F. J. Myers Mfg. Co.....Hamilton, Ohio.

Wire, Copper

E. F. Phillips Electrical Works, Ltd.....Montreal.
The Wire and Cable Co.....Montreal.

Wire, Electric

Canadian General Electric Co.....Toronto.
E. F. Phillips Electrical Works, Ltd.....Montreal.
The Wire and Cable Co.....Montreal.

Wire, Insulated Copper

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E. F. Phillips Electrical Works, Ltd.....Montreal.
The Wire and Cable Co.....Montreal.

Wire Lockers (Employees)

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H. W. Petrie.....Toronto.

Wrecking Cranes

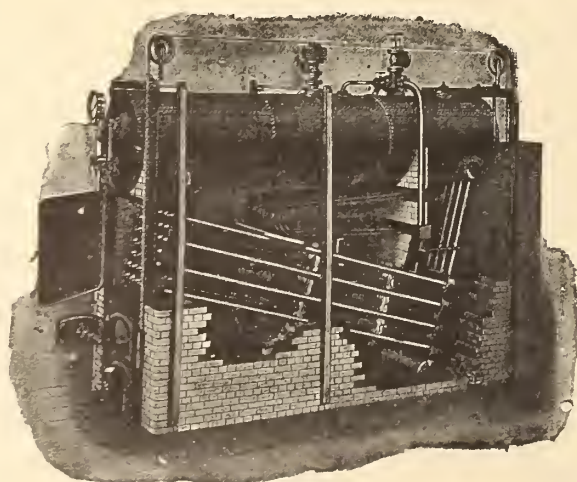
W. H. C. Mussen & Co.....Toronto.

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Yachts

Polson Iron Works.....Toronto.



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Rhodes, Curry & Co. Amherst, N.S.

Babblitt

Williams & Wilson. Montreal.

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Chicago Railway Equipment Co., Chicago, Ill.

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The Hudson's Bay Co.

Block Signals

General Railway Signal Co., Buffalo, N.Y.

Boller Compound

N. J. Holden & Co. Montreal.

Boiler Covering

Mica Boiler Covering Co. Montreal.

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Hall Engineering Works. Montreal.
Polson Iron Works. Toronto.
Robb Engineering Co. Amherst, N.S.
Williams & Wilson. Montreal.

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Boilers, Portable

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H. W. Petrie. Toronto.
Robb Engineering Co. Amherst, N.S.

Boilers, Stationary and Marine

Babcock & Wilcox (Ltd.) Montreal.
Canada Foundry Co. Toronto.
H. W. Petrie. Toronto.
Robb Engineering Co. Amherst, N.S.

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Babcock & Wilcox (Ltd.) Montreal.
Erie Heating Co. Chicago, Ill.
H. W. Petrie. Toronto.

Boilers, Water Tube

Babcock & Wilcox (Ltd.) Montreal.
Erie Heating Co. Chicago, Ill.

Boiler Tubes

Jas. W. Pyke & Co. Montreal.

Bolsters

Simplex Railway Appliance Co. Montreal.

Bolts, Bridge

Canada Foundry Co. Toronto.
Montreal Rolling Mills Co. Montreal.
Toronto Bolt and Forging Co. Toronto.

Bolts, Carriage and Machine

Toronto Bolt and Forging Co. Toronto.

Bolts, Track

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Montreal Rolling Mills Co. Montreal.
Toronto Bolt and Forging Co. Toronto.

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Brake Beams

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Car Lighting

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Car Movers

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W. H. C. Mussen & Co. Montreal.

(Continued on page 501.)

"PARIETTE" READY ROOFING

FOR

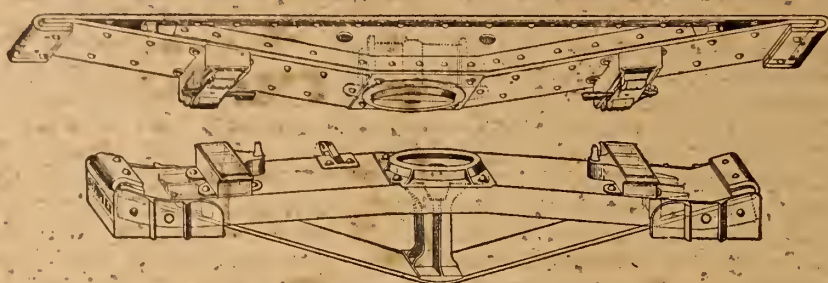
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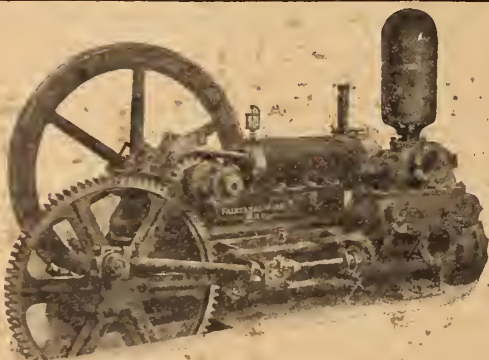


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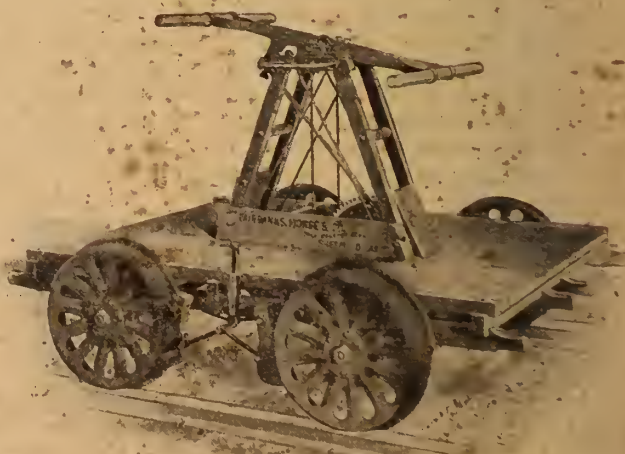
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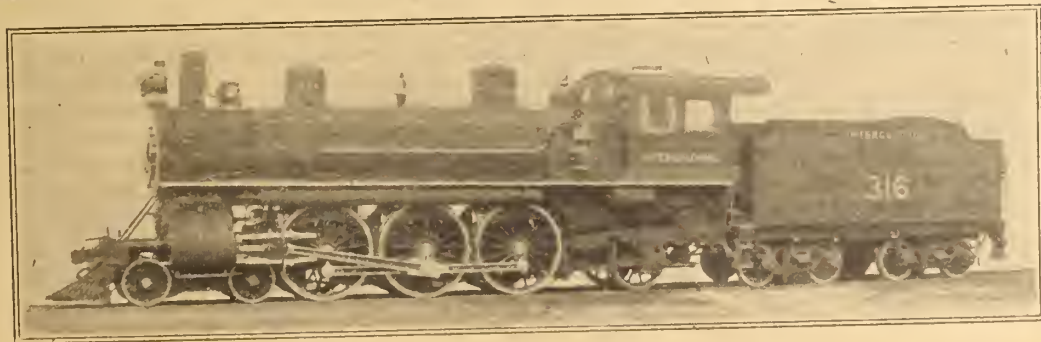
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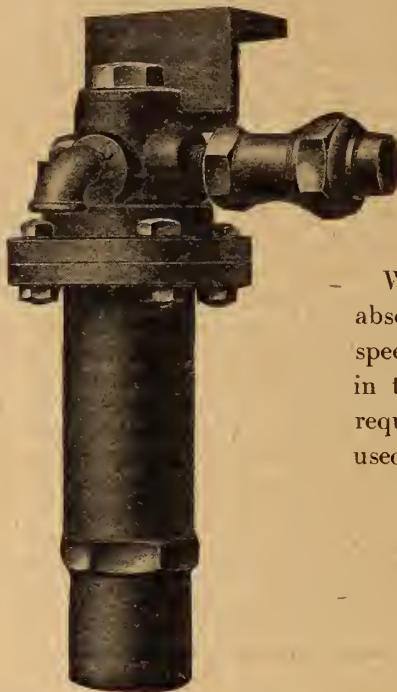
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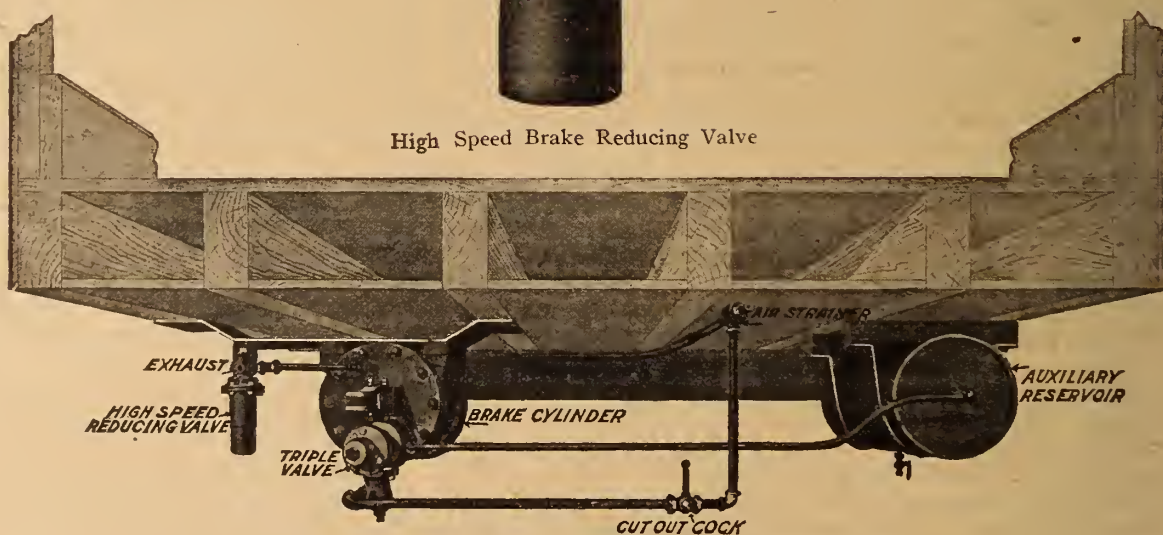
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TORONTO, CANADA, NOVEMBER, 1905.

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The Construction of a Railway Passenger Car.

By C. F. Rydberg, General Foreman, C.P.R.
Car Shops, Montreal.

In presenting an article upon the construction of a passenger railway car, I will not try to go into all the minor details, but give a general synopsis of the most important points. One of the most important things is the care and drying of the lumber. All hard-wood lumbers, after being sawed, should be carefully piled up in the lumber yard with about 1 in. strips between each layer of boards, one end of the pile should be placed even, with the top of the pile projecting over the bottom about 12 in., and the strips between the layers of boards placed opposite one another and even at the end. After the pile has been finished, it should be carefully covered over to prevent the sun and rain from warping and checking the boards. A great deal of lumber can soon be wasted in the lumber yard if it is not properly taken care of, and it is necessary to give this part of the work as much attention as any of the others in the construction of cars, and it should remain in the yard for about a year to air dry, to allow the sap to evaporate, and then be put through the dry kilns. When the lumber is going through the dry kilns, it has to be carefully watched that the right temperature is maintained. Some advocate the steaming of lumber the first day that it is placed in the kiln; the object of this is to heat the boards through and to drive out the sap; but others advocate the drying of lumber by systems of air circulation with steam pipes for heaters, while others with hot air alone. The different systems of drying lumber all have their own merits. Locality may have something to do with the preference of some of them, but the point they all look for is to thoroughly dry the lumber in the shortest time possible, without checking or discoloring. After the lumber comes out of the kiln, it should be piled up under a cover, from two to three weeks, before it is taken into the wood-mill to be cut up. The object of this is to allow the lumber to take a set under natural conditions. In working up lumber for outside and inside finish, the shops should be kept free from moisture and maintained at a fair heat, to prevent the lumber from absorbing dampness, until it is finished and varnished; after the pores are filled and varnished, it will then take a more permanent set, and will not so readily swell or shrink with the change of the weather.

Commencing with the bottom of the car. Sills without splices are always preferred

where this length of timber can be obtained, but there are not many car-building companies which are fortunate enough to be so located that they can conveniently purchase sills the required length of car without splicing. When sills are spliced, it is customary to zig-zag the splices, so that they will not all come opposite to one another. A splice illustrated on page 509 was invented by one of the men at the C.P.R. shops, and, in my opinion, this is the best splice for splicing of sills that is known to-day, as you will all note that the ends in this splice are all square, and in the bumping of a car there is



FRANK W. MORSE

Vice-President and General Manager Grand Trunk Pacific Ry.

no part of the splice that can give. The bumping of a car is considered to be a much harder strain than the pull. This cut shows two iron plates, one on top and one on bottom. But this can be buried with an iron plate on the side. A splice of this kind is made on the hollow mortising machine, and there is but very little hand labor used in trimming it up to put together. The key in the centre is used principally for drawing the two pieces together to make the shoulders tight.

Of late years, considerable iron has entered into the construction of the bottom of passenger railway cars. The side sills are

plated with plates of iron about $\frac{3}{4}$ x 7 in., some running them the total length of the sill, and others only to the centre needle beam. On the inside of this plate there is an extra sub-sill placed to receive the mortises for the bridging. In some cases I have seen cars built where this inside sub-sill was left off and the mortise put through the iron plate, but as this cuts the plate nearly in two, I would consider this bad practice, and the benefit received from the iron plate would be very small. The steel platform and wide vestibule was a decided improvement and an advance over the older style of non-vestibule cars and wooden platforms. With the present car, with steel platform, wide vestibule, and anti-telescope plate, and the end post, end plate, and end sill re-inforced with iron, the travelling public can feel secure, as it is almost impossible that a car built as mentioned, can be totally destroyed or telescoped by rear-end collision; a part of the end would only be broken, and, in most cases, the damage would not go beyond the end of the car. The passengers in the centre would possibly not receive any more injuries than a shaking up.

In building the bottom of a car, the majority are framed as follows: Two centre sills, two intermediate sills, two side sills, with $\frac{3}{4}$ in. tie rods running clear through, about 4 ft. apart. After the bottom has been thoroughly bolted together, and lined up, a false floor is nailed in between the sills, resting on cleats about 2 in. from bottom of sills; this is to receive shavings and fillings in the bottom of the car. Steel platforms, needle beams, truss rods, etc., can now be put on, and the camber of the car set, and the bottom, deafening floor laid cross-wise of the car. The bottom is now filled up with dry pine shavings, which are cheap, and answer all purposes. Some may vary from this, putting in a filling of mineral wool. This filling is put in about from $4\frac{1}{2}$ to 5 in. deep. After this, a third floor is laid on top, usually diagonally, and given a heavy coat of paint and covered with tar paper; the object of the tar paper is to make the floor warmer and also to prevent the floor from creaking; a good top floor, out of quarter-sawed hard pine, or maple, is then put on, running length-wise of the car, for coaches. In sleeping cars it is customary to lay both the top floors diagonally opposite one another, so that one will form a brace against the other, but on account of the wear of the floor in the centre of the aisle in passenger coaches, it would not be advisable to do this on the latter kind of a car on account of repairs; if the floor, diagonally laid, was worn in the centre, it would all have to be taken up, but

(Continued on page 500.)

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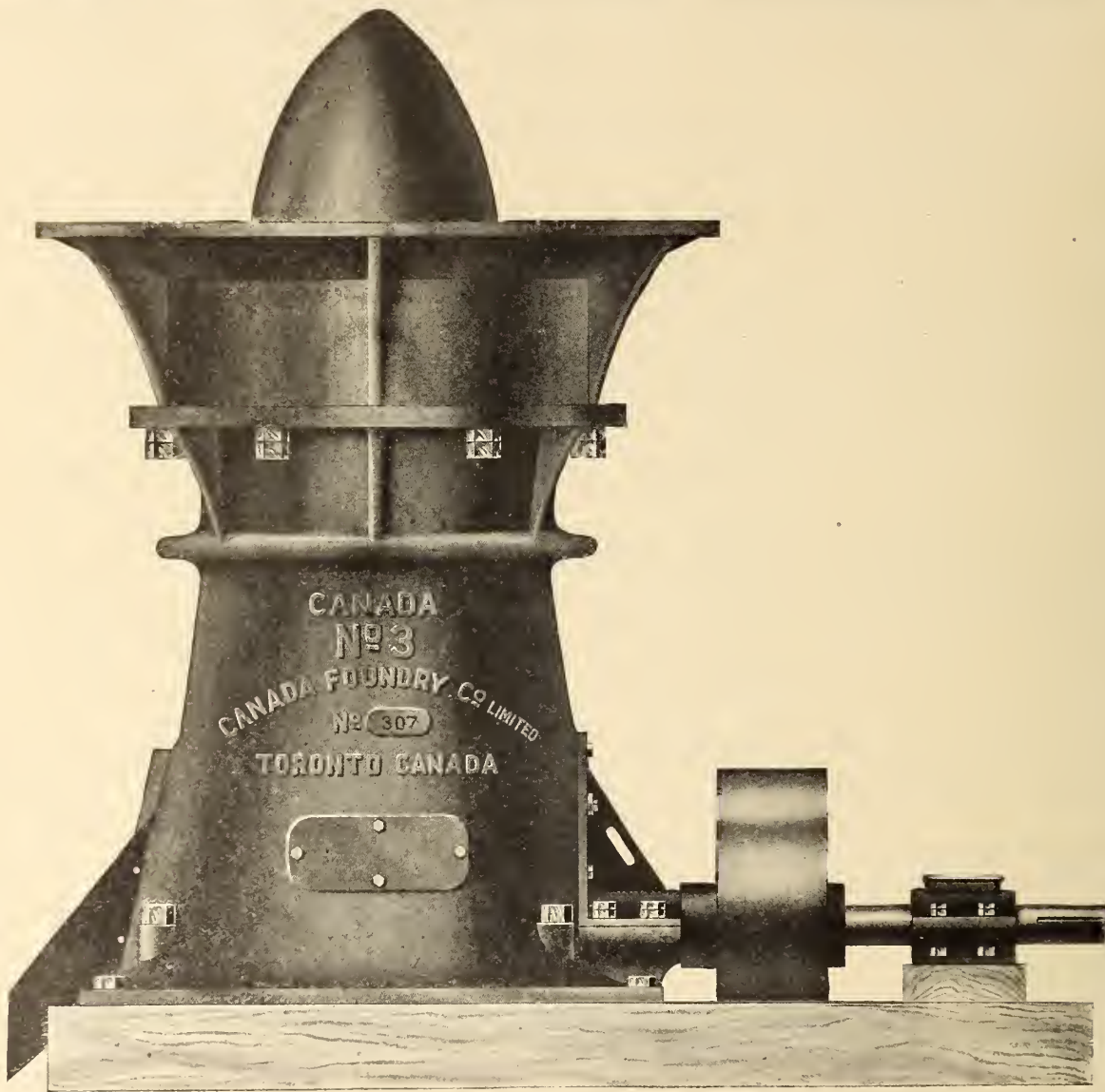
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The Construction of a Railway Passenger Car.

(Continued from page 505.)

when it is laid length-wise of the car, the boards which are worn can easily be replaced.

In old cars, with wooden platforms, you, no doubt, have noticed how the ends droop; this is because the sills gradually bend, but with the steel platforms and plating the sills, this has all been overcome; and in trussing the cars it has been the custom for most builders to turn the ends up from $\frac{1}{8}$ to 3-16 in. to ensure a straight car without drooping ends after the strain comes on to the truss rods and woodwork after the car goes into service. The side sill plates are hammered by the blacksmith, on the flat side, to take the shape of the chamfer of the car.



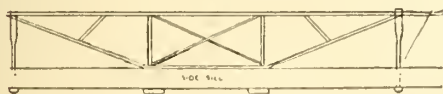
Sill splice invented by C.P.R. employee.

The next parts of the car to put on are the posts, top plate, and elevation deck. In lining up the top side plate, it is customary to pull it in $\frac{1}{8}$ in. on each side in the centre. Iron deck carlines are put in about 6 ft. apart, and wherever partitions cross the car there is an iron carline placed with a lug projecting at the bottom of the deck rail, so that a rod can be run across the car to tie it together. In setting up frame, it is tied together and braced by strips of boards, some cut the right length for supporting the elevation deck, and for the width of the upper deck boards are cut out with notches in them, and nailed temporarily in the deck sash openings. The frame is now in its right position and securely held by temporary bracing.

The next parts of the car to put in are the belt rail, ribs, braces, and blocking. When the blocking of the frames was first introduced, it was a decided improvement over cars formerly built without blocking; it makes a warmer car and more rigid. The mode of applying the blocking is by rabbetting the posts about $\frac{1}{4} \times \frac{3}{4}$ in. deep, and fitting the blocking in tight, and glueing and nailing the same.

The next process is to put in the belt rail, ribs and braces. Great care has to be taken in fitting the ends of the braces; a piece of 1-16 in. sheet iron is driven into the joint to ensure a perfect fit. This also makes a stronger job, and prevents the braces from pressing into one another. After the brace has been applied, the blocking is put in. In some cases, the long bracing and ribs have been discarded, and in their place the car sides are sheathed up with $1\frac{1}{2}$ in. poplar planks, fitted tightly together and glued, also gained to fit tightly around the post.

The inside truss rod, size $\frac{1}{2} \times 2$ or $2\frac{1}{2}$ in., with round ends, and supported with cast iron truss posts (located usually over one of the bolsters), is for two purposes, one for holding up the end of the car, the other for holding down the centre of the car when the car received heavy blows from shunting. For heavy cars the inside truss rod is sometimes varied as shown in this sketch.



The present mode of applying inside truss rods is to gain the posts in the mill all the same distance from the bottom, and this raises the inside truss rod in the centre the same as the camber of the car. I consider this wrong practice; this rod should run

perfectly horizontal, after the camber of the car has been put in; this, then, would make it serve a third purpose, of holding up the centre of the car in place of pulling it down, and in place of gaining posts in the mill all the same distance from bottom, these gains should be cut into the posts by hand. It can be readily seen that the weight of the ends of the car and the downward blow the ends receive from hard shunting, has a tendency to straighten this rod, and in so doing pulls the car down in the centre. This slackens up the inside rod and lets the ends down, but if the inside truss rod is put in straight, there is no chance for it to slacken. If the bottom outside rod should get slack, the inside rod would commence to pull, and the weight of the ends of the car will help to pull the centre of the car up.

The side of the car is bolted together with $\frac{3}{8}$ in. rods running from the plate through the sill. If the pillar is 4 in., one rod is placed through the centre, for pillars of about 12 in. down at the side; if it is a very wide pillar, these rods are put in about 12 or 14 in. apart. The end rods running down through the end plate are usually about $\frac{3}{8}$ in. The elevation deck is bolted in a similar manner, and all the pillars between the deck sash are framed up solid.

The roof boards are usually white pine or poplar; for the lower deck about 2 in., and the upper deck about $2\frac{1}{2}$ in. wide. Great care should be taken in laying the roof boards; they should be both nailed and screwed to prevent the roof from creaking, and any high joints should be dressed off to prevent them from showing through the canvas.

For roof covering, no. 6 canvas, 40 in. wide, the weight of which is 1 lb. 8 oz. per yard, has been almost universally adopted, and it is found that this gives a much better roof than the old style of tin, which would crack in the joints from the working of the car. When the canvas roof was first applied, it was thought necessary to coat the canvas underneath with paint, but later this was found not to be necessary, and it makes a much better roof without the paint on the underneath side on account that the canvas can be stretched much better and put on tighter without the underneath coat of paint. Copper flashing is applied around all the iron carlines where they run through the canvas on the side, and this flashing is soldered at the top, to the carline, to prevent water from getting in or running down into the car. Some builders apply copper flashing on the lower deck the whole length of the car at the deck sashes; this is quite expensive, and is found not to be necessary, as the canvas will last as long as the deck sash as at any other part. It is very important that the right kind of paint is properly applied on new canvas roof. A new roof should have no less than four coats of good paint, and one day between each coat. Canvas on the lower stretch is brought down about 1 in. on the face of the eave moulding and nailed with a double row of 16 oz. cut tacks; on the upper deck one row of tacks has been found to be sufficient, but in both cases the canvas should be pulled over and nailed on the face of the moulding, in place of at the edge.

In fitting in the sash rest, the window post should be gained on the side about $\frac{1}{8}$ in., and sash rest should be fitted tightly in the window post so as to prevent water from getting in at the corners of the window stops.

The letter board is usually about $1\frac{1}{2}$ in. thick. In my opinion, the best practice for applying letter boards is to use two thicknesses of $\frac{7}{8}$ in.; the first thickness is screwed on from the outside into the post, and the outside letter board is then, in turn, screwed from the inside so that there are

no screw holes or plugs to show on the outside. The joints of all letter boards and sash rests should be thoroughly oiled or white-leaded; for cars finished in natural wood, oil only can be used, as white lead has a tendency to show through the varnish.

In applying the sheathing on the outside of the car, for a painted car this is usually poplar or other woods, according to location, and for a natural finished wood car, cherry, mahogany, or B.C. pine. In my opinion, the most economical way to sheath up the outside of a car is with sheathing with 3 in. face with a V groove through the centre. By using 3 in. sheathing it saves one joint where the stock is wide enough, and in cutting up the lumber all the narrow widths are used up and cut into sheathing with $1\frac{1}{2}$ in. face, and both sizes used.

A great deal of trouble has been experienced from varnish peeling on the outside, and, in most cases, the painters are blamed; but after giving the question of paint-peeling a thorough study, it was found that in nearly every case it was caused by the dampness getting in behind the sheathing, especially at washstands, stove room, etc., but in some cases from the inside of the cars from washing the floors, also from the traps underneath the car from the steam heat; this was especially the case where the joints in the deafening floor underneath were bad; the steam would soak the shavings between the floors, and some cases have been seen where the dampness has penetrated the whole side of the car, and caused the paint or varnish to peel off. On natural finished wood cars these were serious questions, but they have almost been entirely overcome by soaking the sheathing in boiled oil for half an hour, and then putting it into a dry box; this forms quite a heavy coat of oil on the back and in the joints, and, in addition to soaking the sheathing in oil, the inside of it is coated, when applying, with a heavy coat of white lead, which protects the sheathing from any small amount of moisture which may get in at the back of it. I feel safe in recommending this mode of treating sheathing, even for painted cars, in the place of glueing, as the glue on the inside of the sheathing is no protection whatever from dampness, but will loosen right up. In some cases no. 28 zinc has been used for covering the whole side of the car before the outside sheathing was nailed on, to prevent water or dampness from getting in at the back.

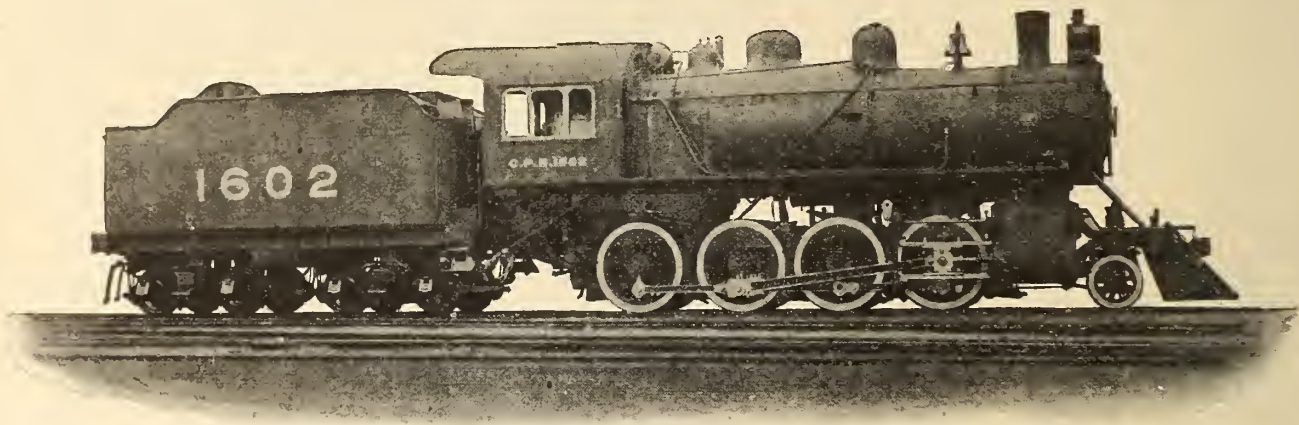
The inside truss plank is put in the whole length of the car, about 3 in. thick, and from 10 to $11\frac{1}{2}$ in. wide, with cove piece rabbetted into the plank on one side; and tongued and grooved on the other to match the flooring; the object of this is to form a water-tight corner. The truss plank is gained for post to fit into, and screws through the face into the post, and bolted to side sill with hook bolts that are also screwed to the plank with two screws that are placed at a distance of about $2\frac{1}{2}$ ft. The object of the truss plank is to bind the bottom and side of the car securely together. With this mode of applying the truss plank and perfectly kiln-dried flooring, driven tightly together, the inside of the car forms nearly a water-tight compartment, so that the danger of water coming through the floors and reaching underneath floors and sills has been reduced to a minimum.

In laying out the frame of the car, the carline should be so placed in the roof that the partitions on the inside can be screwed through the face of the partition into the carlines. The edge of the partitions should also be securely screwed to the side of the car, and resting in a groove $\frac{1}{8}$ in. deep, and should be solidly on the bottom of the groove at the side of the car, and about $\frac{1}{8}$ in. off

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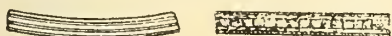
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the bottom of the groove at the centre of the car. All partitions, inside finish, and head lining, before they are nailed up inside the ears, should have a covering of some heavy material, similar to old window curtain material, tacked or glued on between the frame and inside finish, to prevent the car from creaking.

On account of the frequent change of temperature in railway cars from warm to cold and damp weather, much more skill and care is required in building the cabinet work for the interior finish, than would naturally be required for the building of furniture. The system usually adopted for veneering of furniture would not stand in a coach or sleeper. In passenger cars it has been found necessary to cross-band all veneered work. Following is a cut of built-up work for partitions and berth fronts.



A great deal of care is also required when building the inside finish, to keep the materials in a moderately warm shop, so that they will not absorb dampness, and also to give the materials the second drying in heater boxes before the work is glued together, in order to drive out any dampness that the wood may have absorbed in laying around the shop.

The question of glue is also a very important one, as poor glue would not have the proper strength and would deteriorate; thousands of dollars would be wasted, and all the good work of the cabinetmakers would be lost. The glue which will absorb the most water and make the thickest gelatine is considered the best; but the question of slow or quick drying has also to be considered. For making glue joints, quicker drying glue is preferable, but for veneering purposes a slow drying glue is required; for instance, a glue which would be first-class in every other respect but quick drying would not give the same satisfaction for veneering as a slower drying glue, as it would set too hard before the cabinetmakers would be able to get their work into the presses, and the hot cauls placed and screwed down; and should there be any occasion to glue up material that is much exposed to dampness, a small amount of bi-chromate of potash can be mixed in to make it impervious to moisture; this is especially good for pattern makers. The time for veneered work to thoroughly dry requires about three weeks in a moderately warm room; this is especially the case where inlaid work is used for veneering. Veneer work that is cleaned up sooner than that is liable to show pit holes, and an uneven surface after it is varnished, but it is not always that the cabinetmaker can get so long a time to allow his work to lay and dry.

In veneering wooden cauls, galvanized iron smoothened, or sheet copper is used for heating in the heater boxes and laying between the veneers in the presses; some use zinc, possibly on account of its smoothness, but this is an error, as zinc is not a good retainer of heat. Copper and galvanized iron make a good caul for veneered circular work, such as berth fronts, etc. If one sheet of galvanized iron is not found to be sufficient, two may be used.

The preparing of fancy grain veneers for car work is a problem that very few of the present time cabinetmakers understand, until they come to work in a first-class car shop. The richest veneers in color are usually very cross-grained, and in preparing this kind of veneer it is necessary to thoroughly glue-size it and press it between hot cauls before it is laid. This is to thoroughly shrink it so that it will not crack after laying. But there are some very rich-colored,

mahogany veneers, which are so cross-grained where the grain is so short, that it is almost impossible to prevent them from cracking after they have been veneered; but in varnishing this kind of veneer, varnishing on the veneers without shellacing is found to be an advantage, as that the varnish will penetrate the wood deeper and fill the pores up better than shellac. In receiving the veneers from the saw, a good many veneers may be discolored with black, glossy spots; these all have to be tooth-planed off, as glue will not stick where these veneers are spotted.

The wood machine department, for getting out the interior finish for the cabinetmakers, is usually placed under the foreman of the cabinet shop, who makes out his bills for the interior work. In this department a good class of mechanics are required, who should also have the knowledge of how the work is going up in the car; by having this knowledge, they can work up materials to better advantage without waste, and by doing careful machine work a great deal of labor can be saved by the cabinetmakers.

A better class of upholstering work is required for passenger cars than for furniture. The same class of work that is done on furniture would not stand very long in cars; more springs are required and set up better. For covering of car seats, numerous materials and plushes are used; but, in my opinion, the best wearing material is crimson plush, but on account of its color it is not always advisable to use it. Seats and backs covered with rattan are preferable, especially for suburban coaches and summer travel, and leather for smoking-rooms and smoking-cars. Cheaper materials are also largely used for second class cars, which give very good service.

In the car heating department first-class workmanship is required, with good materials, as the strain on the heater pipes in a car is much harder than in an ordinary house; the best grade of pipe, extra heavy, is used, with wrought iron or steel couplings. I will not attempt to go into any of the details of steam heating, but the ordinary procedure for fitting up a new car is to put the heater pipes in first before any of the partitions are put up; this gives the steam-fitters a free chance to work in the car.

The tinsmith department is also a very important branch in car building, and where cars are fitted up with overhead water tanks; in localities where the water is alkali, copper tanks only should be used as they will last much longer. Galvanized iron tanks may give good satisfaction on roads where the water is soft, but where the water is alkali they are liable to give out in one year.

The modes of lighting a car are by oil, Pintsch gas, acetylene gas and electricity. In reference to the latter, it is still in its experimental stages. The gas receivers and manner of piping are somewhat similar for both the Pintsch and acetylene gas; the latter gives a much brighter light.

Air brakes on the modern ear are more powerful than formerly, some using 16 in. cylinders with high speed brake, and, in place of being fastened to the bottom of the car on a wooden plank, the cylinder is now bolted to an iron frame, which, in turn, is bolted to the sills.

All ears of more recent build have steel platforms. The side motion for the coupler has been increased of late years from 3 to 6 in., and in some cases a little more. This was found desirable to allow for easier curving and less wear on wheel flanges. Roller side bearings have also been introduced on late ears for the same purpose.

In building the trucks, considerable iron work now enters into the construction. The wheel pieces, cross timbers, and end sills are all lined with iron plates, and malleable iron

corner plates applied. Of late years, journals have been largely increased in size. There have been a number of different styles of journals, journal wedges and brasses used, but, in my opinion, the best system of journals, journal wedges and brasses, is the M.C.B. standard. In addition to this, roller bearings are now being experimented with, and should they prove successful, both as to service and cost, no doubt will be another marked advance in car building. In connection with trucks, we hear a great deal said and written about hot journals, but, in this respect, I wish to state that this can easily be overcome, at least, when cars leave the shops, by carefully finishing the journals so that there are no rough places. It is surprising the small amount of roughness on a journal that will cause a box to run hot; in some cases it is almost imperceptible. In addition to the care of the journals, the boxes should be properly packed and oiled; with the box working easily in the pedestal, and proper end motion for the brass, and with a truck fitted up in this way there is no danger of heating with the heaviest ears.

The process for painting and varnishing the outside of a new passenger car.—Natural wood finish, one coat, no. 1 primer, and allowed to stand two days, and then fill; then sandpaper, varnish one coat, putty and ornament, and finished with three coats of varnish. On natural wood finish cars, it is necessary to give one more coat of varnish than for painted cars. Painted ears have from three to four coats of paint, with usually two coats of color applied before varnishing.

The foregoing is a description of a part of the work in building a present day passenger car, but after this car is completely finished and ready for service, I consider it an absurdity on account of its weight. A tendency of late years has been to build the cars longer and strengthen them in all weak parts to ensure the safety of the public, and this has increased the weight until the management of the roads are bending their energies towards building heavier engines to haul heavier trains; this, in my opinion, is an absurdity, because expenses will increase in keeping up the road bed. If the same amount of energy was expended in building a car out of lighter and stronger material, such as aluminum, a market would be created for this material, and cheaper ways of manufacturing it would probably soon be adopted. This, in my opinion, is the ideal material for building railway ears in the future, to take the place of wood, iron, and brass trimmings, and I feel satisfied that it would not be very long before a car built of this material could be built as cheaply as the present ear, and the weight would then be reduced to a minimum. To commence with, the outside to be covered with sheets of aluminum $\frac{1}{4}$ inch thick; this would make a handsome ear and be a big saving in maintenance in keeping up repairs and would be easier to keep clean while in service.

The foregoing paper was read at a recent meeting of the Canadian Railway Club.

The Canadian White Co., Montreal, has received the contract for the whole work of constructing the Federal Life Assurance Co.'s head office at Hamilton, Ont. It will be an eight story modern steel construction, fireproof structure and is to be completed by Aug. 1, 1906.

In our Oct. issue we gave some facts about the Canadian Freight Association and its various presidents. The position of secretary has been occupied as follows: 1883-4, E. Tiffin, Credit Valley Ry.; 1885-6, R. Quinn, G.T.R.; 1887-1890, A. H. Harris, G.T.R.; 1891-5, W. B. Bulling, C.P.R.; 1896-1905, J. Earls; 1905, T. Marshall.

The NORTON BALL-BEARING JACK

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MADE IN CANADA FOR CANADIANS**

THE BALL-BEARINGS

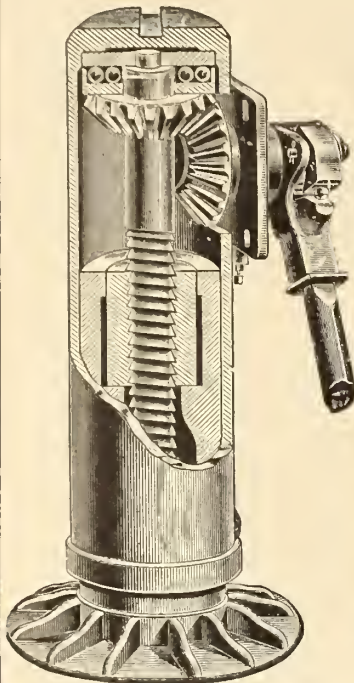
reduce the friction and increase the power of the Jack.

THE GEARS

are cut from solid steel forgings, thereby giving highest efficiency and greatest durability.

THE SCREW

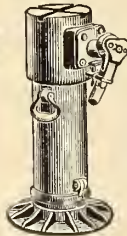
runs in a Phosphor Bronze Nut and is covered by a sliding sleeve which takes all the side strain, prevents the Screw from bending, and protects the working parts from Grit and Rust.



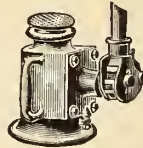
Sectional View of Norton Jack.



Foot-Lift Jack.



35 Ton Jack.



Journal Jack.

Made in 50 styles—8 to 70 tons capacity.

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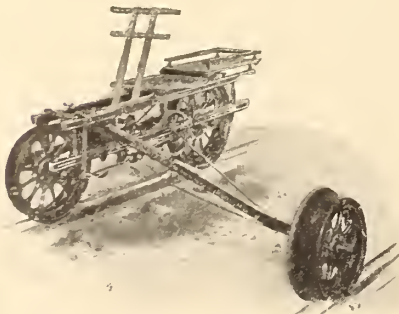
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Duluth, South Shore and Atlantic Ry.

The report of this subsidiary company of the C.P.R. for the year ended June 30, 1905, consists of tabular statements, which are printed without comment. The main line owned is 517.44 miles, branch lines owned, 58.73; total owned, 576.16; trackage rights leased, 9.64; total miles operated, 585.81, against 578.64 on June 30, 1904; the increase being in the mileage of branch lines owned. The equipment consists of 73 locomotives, 60 passenger cars, 2,589 freight cars and 87 miscellaneous cars. The income accounts in comparison with the year ended June 30, 1904, are as follows:—

	1904-5.	1903-4.
Earnings from operation	\$2,706,936.02	\$2,524,612.07
Operating expenses	1,852,795.09	1,749,456.12
Net earnings	\$854,230.93	\$775,155.95
Other income	15,774.13	11,483.96
Net income	\$870,005.06	\$786,639.91
Deduct—		
Interest on bonds	\$859,700.00	\$859,700.00
Interest on current liabilities	123.78	
Taxes	216,733.13	210,391.07
Total	\$1,076,557.51	\$1,070,091.07
Balance	206,552.45	Def 283,451.16

EARNINGS AND OPERATING EXPENSES.

	1904-5.	1903-4.
Gross Earnings.		
Merchandise freight	\$1,393,522.53	\$1,281,091.98
Iron ore freight	306,009.43	171,788.66
Passenger	853,238.24	913,472.56
Mail	60,391.79	58,886.60
Express	33,138.12	35,348.80
Sleeping and observation cars	27,340.65	25,797.90
Miscellaneous	33,295.26	37,412.57
Total	\$2,706,936.02	\$2,524,612.07
Operating Expenses.		
Maintenance of way and structures	\$436,316.15	\$406,722.27
Maintenance of equipment	227,768.26	219,311.49
Conducting transportation	1,107,043.44	1,041,803.84
General expenses	81,577.24	81,618.52
Total	\$1,852,795.09	\$1,749,456.12
Net earnings	\$854,230.93	\$775,155.95
Percentage of expenses to earnings	68.44	69.3
Gross earnings from operation per mile of road	4,620.84	4,362.78
Operating expenses per mile of road	3,162.64	3,023.23
Net earnings per mile of road	\$1,458.20	\$1,339.55
Gross earnings from operation per train mile	\$1,394.24	\$1,326.5
Operating expenses per train mile	.95426	.9192
Net earnings per train mile	\$.43998	\$.4073

The operating expenses include the cost of rebuilding and filling bridges, which for the year was \$8,551.20, against \$1,956.98 for year ended June 30, 1904.

FRIGHT TRAFFIC.

	1904-5.	1903-4.
Tons through freight carried, earning revenue	1,154,493	852,194
Tons local freight carried, earning revenue	1,699,043	1,108,555
Total tons freight carried, earning revenue	2,853,536	1,960,749
Mileage of through freight	120,152,670	95,250,662
Mileage of local freight	58,772,225	46,759,948
Freight mileage, or tons carried one mile	178,924,895	142,010,610
Average ton haul for through freight	104.07 miles	111.77 miles
Average ton haul for local freight	34.59 "	42.18 "
Average ton haul for all freight	62.7 "	72.43 "
Average amount received for each ton haul	\$8.862 cents	73.153 cents
Average receipts per ton per mile for through freight	.885 "	.934 "
Average receipts per ton per mile for local freight	1.048 "	1.165 "
Average receipts per ton per mile for all freight	.939 "	1.010 "
Total freight earnings	\$1,699,531.96	\$1,453,690.64
Freight earnings per mile of road	2,601.17	2,512.12
Freight earnings per train mile	1.62	1.48

Following is the percentage of the tonnage of the principal commodities carried:—Ores, 49.42; logs, 9.81; other forest products, 8.65; lumber, 7.57; merchandise, 3.52; coke, 3.45; bituminous coal, 3.44; iron, pig and bloom, 2.31; copper, 1.87; flour, 1.68; grain, 1.03.

PASSENGER TRAFFIC.

	1904-5.	1903-4.
No. through passengers carried, earning revenue	131,522	152,537
No. local passengers carried, earning revenue	422,571	459,771
Total number passengers carried, earning revenue	554,093	603,308
No. passengers carried one mile	31,019,854	33,388,599
Average distance carried	55.98 miles	55.342 miles
Average amount received from each passenger	\$1.49648	\$1.46875
Average receipts per mile for through passengers	2.603 cents	2.526 cents
Average receipts per mile for local passengers	2.755 "	2.822 "
Average receipts per passenger per mile for all passengers	2.673 "	2.654 "
Total passenger earnings	\$974,108.80	\$1,033,508.86
Passenger earnings per mile of road	1,662.84	1,786.01
Passenger earnings per train mile	1.06095	1.0845

BALANCE SHEET, JUNE 30, 1905.

Cost of road and equipment	\$45,526,289.20
Mackinaw Transportation Co.	237,371.79
Lake Superior Terminal & Transfer Ry.	22,300.00
Lake Michigan and Lake Superior Ry.	7,662.68
S. S. Marie Bridge Co.	250.00
Mineral Range Rd. Co.	532,295.00
Sainte Marie Union Depot Co.	56,462.52
Western Express Co.	25,000.00
E. W. Allen, treasurer	57,319.61
Sundry account ledger	122,751.85
Rent ledger	1,073.50
Station ledger	395,359.27
Western Express Co. (current account)	14,801.44
Post Office department	14,683.77
Material	247,443.24
Profit and loss	2,460,420.22
	\$49,721,484.00
Common capital stock	\$12,000,000.00
Preferred capital stock	10,000,000.00
D. S. S. & A. consols, 4% gold bonds	15,107,000.00
D. S. S. & A. 1st mortgage 5% bonds	3,816,000.00
M. H. & O. 6% bonds of 1925	1,077,000.00
Income certificates	3,000,000.00
Car trust notes, 3rd series	5,099.61
Car trust notes, 5th series	2,36,213.19
C.P.R. guaranteed interest advances	2,985,115.18
C.P.R. general account	198,012.58
South Shore Land Co.	143,994.30
M. H. & O. Lands	9,248.80
Bills payable	16,000.00
Vouchers payable	173,925.47
Labor	161,326.22
Coupon ticket ledger	110,124.08
Car service ledger	7,298.38
Accrued interest on bonds	207,938.33
Accrued taxes	407,186.66
	\$49,721,484.00

During the year \$42,094.42 was charged to construction account, the principal item being \$38,699.03 for new branches and sidings.

Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:—

No. 654. Sept. 13.—Granting permission to the C.P.R. to construct a branch line to a ballast pit on the n.w. $\frac{1}{4}$ of sec. 17, tp. 10, range 25, w.p.m., Manitoba.

No. 655. Sept. 13.—Authorizing the construction of a spur from the C.P.R. Pembina Mountain branch, from south of Alexander ave. to Imperial Oil Co.'s premises, Winnipeg, Man.

No. 656. Sept. 13. Varying an order of July 19, by inserting 35 ft. 10 in. instead of 37 ft., as the width of the Poulette St. bridge, Hamilton, about to be reconstructed by the Toronto, Hamilton and Buffalo Ry.

No. 658. Sept. 13.—Approving of form of contract for the carriage of passengers and freight for the Wabash Rd.

No. 659. Sept. 14.—Granting permission to the G.T.R. to construct branch line in town of Penetanguishene, Ont., to the premises of the Breithaupt Leather Co., Ltd.

No. 660. Sept. 14.—Approving plan and profile of location for the Huron and Ontario Ry., from St. Clair Ave., Toronto Junction, to Edgeley, Ont.

No. 661. Sept. 14.—Approving plans for revision of location of the C.P.R. line through Alliston, Ont.

No. 662. Sept. 14.—Approving location plans for the projected line of the Brandon, Saskatchewan and Hudson Bay Ry.

No. 664. Sept. 18.—Approving of deviation from previously located line on C.P.R. Pheasant Hills branch, between mileage 212.5 and mileage 327.9.

No. 665. Sept. 18.—Sanctioning location plan of extension of the Tillsonburg, Lake Erie and Pacific Ry., from its present northerly terminus through North Oxford tp. to lot 2, con. 3, West Zorra tp., Ont.

No. 666. Sept. 18.—Approving location of the James Bay Ry. Co.'s line through the tp. of Mara, county Ontario, mileage 69.02 to 80.26, Toronto northward.

No. 667. Sept. 18.—Granting permission to the C.P.R. to cross Wellington, Nelson, Albert, Tupper, and Beach Streets, Alliston, Ont.

No. 668. Sept. 18.—Authorizing the opening for traffic of the C.P.R. Pheasant Hills branch from Lipton to Strassburg, Sask., 148 miles.

No. 669. Sept. 18.—Authorizing the opening for traffic of the C.P.R. Wetaskiwin branch from Wetaskiwin to Camrose, Alta., 25 miles.

No. 670. Sept. 18.—Authorizing the opening for traffic of a deviation on the main line of the C.P.R. between mileage 171.59 and mileage 175.90 west of Medicine Hat, Alta.

No. 671. Aug. 29.—Authorizing the construction within two years of a branch line from Catharine St. to the National Museum, Ottawa, by the Canada Atlantic Ry.

No. 672. Sept. 21.—Authorizing the construction within two years of a spur line in Sundridge, Ont., by the G.T.R.

No. 673. Sept. 21.—Authorizing the construction within two years of a spur line in Gravenhurst, Ont., by the G.T.R.

No. 674. Sept. 21.—Approving location plans for the St. Maurice Valley Ry., through the counties of Three Rivers, St. Maurice and Champlain, Que.

No. 675. Sept. 21.—Granting permission to the Water Commissioners of Berlin, Ont., to lay a water main under the G.T.R. tracks at Mill St.

No. 676. Sept. 21.—Granting permission to the Berlin, Ont., Town Council, to lay sewer and surface drainage pipes under the G.T.R. tracks at Wellington St.

No. 677. Sept. 21.—Authorizing the G.T.R. to construct a siding extension in Chatham, Ont.

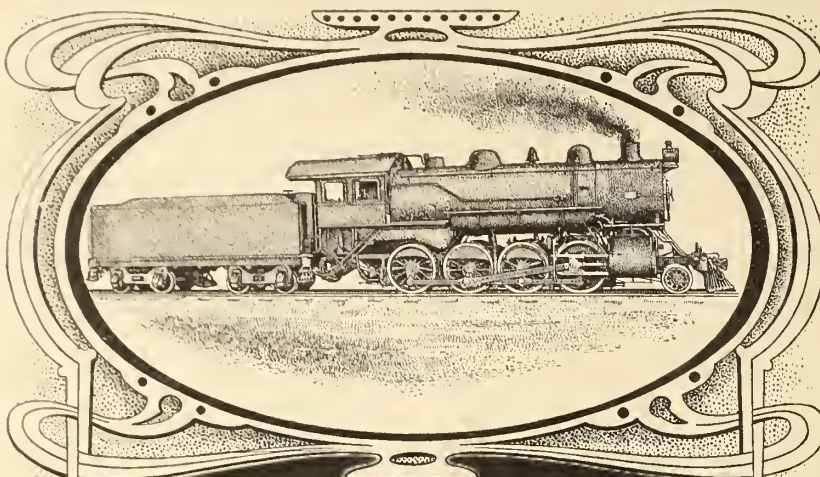
No. 678. Sept. 19.—Varying the order of Sept. 13, by inserting a clause to the effect that the C.P.R. branch line in Winnipeg shall be constructed and operated in accordance with the terms of an agreement with the city council dated Sept. 28, 1904.

No. 679. Sept. 21.—Granting permission to the G.T.R. to construct a branch line from north of Canterbury St., Woodstock, Ont., to the premises of the Bain Wagon Co.

No. 680. Sept. 22.—Granting permission to the G.T.R. to construct a branch line from its Buffalo and Goderich line, on w. $\frac{1}{2}$ lot 8, con. 1, tp. Humberstone, Co. Welland, southwesterly to a point on lot 8.

No. 681. Sept. 22. Approving of the crossing by the C.P.R. of Rollo and Bond streets, and Dundas and Waterloo roads, Galt, Ont.

No. 682. Sept. 25.—Approving plans for the reconstruction of four bridges on the St. John, N.B., section, C.P.R.



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FOR CHANGING WATER, WASHING AND FILLING LOCOMOTIVES
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FIVE TO SEVEN HOURS SAVED OVER PRESENT METHODS

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CHICAGO.

C. P. R. LANDS

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TERMS OF PAYMENT.

An actual settler may purchase not more than 640 acres, on the ten instalment plan by paying a cash instalment at time of purchase, interest at six per cent, on the unpaid purchase money at the end of the first year, and the balance of the principal with interest in nine equal instalments annually thereafter as shewn in the following table:—

160 Acres at \$3.50 per acre, cash payment \$83.90, first year's interest \$28.58 and nine instalments of \$70.00					
" " 4.00 " " 95.85, " " 32.64 " " 80.00					
" " 4.50 " " 107.85, " " 36.73 " " 90.00					
" " 5.00 " " 119.85, " " 40.81 " " 100.00					
" " 5.50 " " 131.80, " " 44.80 " " 110.00					
" " 6.00 " " 143.80, " " 48.98 " " 120.00					

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

DISCOUNT FOR CASH.

If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. on five-sixths of the purchase money.

Interest at six per cent. will be charged on overdue instalments.

F. T. GRIFFIN,

Land Commissioner C.P.R. Co., Winnipeg.

CANADA NORTH-WEST LAND CO.

This Company has 750,000 acres of selected lands in Manitoba and Assiniboia which offer excellent opportunities to settlers and investors who desire to secure good lands in well-settled districts. These lands are on sale at the Company's Office at Winnipeg, and at the various land agencies of the Canadian Pacific Railway Company.

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GOLD HAS NO
SUBSTITUTE"**

No. 683. Sept. 25.—Approving location of C.P.R. Pheasant Hills branch, from mileage 327.9 to mileage 360.3.

No. 684. Sept. 25.—Approving location plans of the Stratford and Listowel branches of the Guelph and Goderich Ry. for the C.P.R.

No. 685. Sept. 25.—Authorizing the opening for traffic of the C.P.R. Lacombe branch from Lacombe to Alix, Alta., 26½ miles.

No. 686. Sept. 25.—Approving location of line of Kootenay Central Ry., through town site of Windermere, B.C.

No. 687. Sept. 28.—Authorizing deviations from location of James Bay Ry., on Island A, Muskoka Lake, and lot 19, con. A, Medora tp., Muskoka district, Ont.

No. 689. Sept. 29.—Authorizing the C.P.R. to construct a branch line from a point on its main line in Toronto to the premises of the Salmon Lumber Co.

No. 690. Sept. 30.—Authorizing the Michigan Central Rd. to construct a branch line in Niagara Falls, Ont., from the main line near Victoria Park Station to the premises of the Canadian Shredded Wheat Co., Ltd.

No. 691. Sept. 30.—Approving location plans for the G.T. Pacific Ry., from near St. Lazare village on the Assiniboine River, mileage 0 to lot 24, tp. 12, range 21, w.p.m., on the Little Saskatchewan River, mileage 62.84, Manitoba.

No. 692. Sept. 30.—Approving location plans for the G.T. Pacific Ry., from sec. 17, tp. 17, range 26, w.p.m., near St. Lazare village, to sec. 21, tp. 25, range 11, west of the second initial meridian, mileage 0 to mileage 109.52.

No. 693. Oct. 2.—Granting permission to the Southwestern Traction Co. to cross the tracks of the G.T.R. near St. Thomas, by means of an undercrossing at the intersection between the town line between the tps. of Southwold and Yarmouth, Ont., and the G.T.R. tracks.

No. 694. Oct. 4.—Authorizing the James Bay Ry. Co. to carry its line across the highway between lots 5 and 6, con. 3, east of Yonge St., mileage 9.2 from Toronto, by an overhead bridge.

No. 695. Sept. 29.—Authorizing the Hawkesbury Electric Light Co. to carry electric light wires across the Canada Atlantic Ry. tracks at Hawkesbury, Ont.

No. 696. Oct. 5.—Authorizing the Salmon River and Northern Ry. to use the crossing authorized to be constructed under an order dated Sept. 2, during daylight, on keeping a flagman there.

No. 697. Oct. 6.—Ordering the C.P.R. to place an automatic electric bell at the crossing of Albert St., Regina, Sask., and directing that the main line be bonded for 800 feet west, and 1,000 ft. east of the crossing.

No. 698. Oct. 6.—Granting permission to the C.P.R. to lay an additional track across the road allowance between the 8th and 9th cons. of Belmont tp., Peterboro' Co., Ont.

No. 699. Oct. 6.—Authorizing change in location plans of C.P.R. Pheasant Hills branch from mileage 360.3 to mileage 361.7.

No. 700. Oct. 6.—Granting permission to the Guelph and Goderich Ry. Co., on consent, to close certain streets and lanes and to divert Blyth creek in Blyth, Ont.

We are advised that there is no truth in the recent press reports to the effect that the G.T.R. has given notice that after the current year the use of the Canada Atlantic Ry. tracks into the Central Station, Ottawa, by the C.P.R., will have to be discontinued unless new financial arrangements are made.

The Canadian Westinghouse Co., Hamilton, Ont., has issued a special booklet dealing with the direct current motors and other electric apparatus, designed for railway service. It has also issued circular no. 1121, Type G, Enclosed Switch; and no. 1123, Prepayment Wattmeters.

Electric Wires Crossing Railways.

As a number of applications come before the Board of Railway Commissioners from time to time for permission to carry electric power wires across railway tracks, an order recently issued may be of interest as showing the general policy adopted by the Board:

The application in this case was made by the Brantford Electric and Operating Co., under Section 194 of the Railway Act, 1903, to carry two electric wires over the G.T.R. tracks at Dalhousie Street, Brantford, Ont. Upon the recommendation of the Chief Engineer of the Board approving of the plan and profile filed and the consent of the G.T.R. filed, it was ordered that the applicants be authorized at their own expense to carry the wires over the G.T.R. tracks, subject to the following terms and conditions:

That the applicants shall at all times, at their own expense, safely maintain the electric wires in good order and condition in all respects, so as at all times to permit of the full and safe use and enjoyment by the G.T.R. of its railway and telegraph and telephone communication, and of any tracks which may hereafter be laid or maintained by the G.T.R. at the said point. The poles carrying the said wires are to be of first-class material and erected in a substantial manner. The applicants shall take all reasonable precautions by the use of pegs set in an upright position at the extreme ends of each crossarm of the applicants' poles immediately outside of the G.T.R. right of way, by stringing a wire parallel with and above any telegraph wires carried along the right of way, or such other devices as the Engineer of the Board may from time to time deem best adapted to prevent the electric wires, in the event of their becoming loose or detached, from interfering in any way with the operation of trains or engines upon the railway or from causing inconvenience, accident, or injury to any passengers or employees thereon, or injuring any telegraph wires carried along the railway. The applicants shall at all times wholly indemnify the G.T.R. against all loss, costs, charges, and expenses to which the G.T.R. may be put by reason of anything done by the applicants in pursuance of this order or by reason of any damage or injury to person or property caused by any of the wires or resulting from the same not being at all times maintained in proper position, and also against all damage, injury or accident to the agents and employees of the applicant company while engaged in erecting, renewing, maintaining or repairing any of the wires. Nothing in this order shall prejudice or detract from the right of the G.T.R. to adopt at any time the use of electric or other motive power in the operation of its company's railway, and to place and maintain upon its right of way such poles, wires, and other fixtures and appliances as may be necessary or proper for such purpose. Any dispute arising between the applicants and the G.T.R. as to the manner in which the wires are being maintained and used or repaired shall be referred to the Chief Engineer of the Board, whose decision shall be final.

The Dominion Engineering and Construction Co. has been incorporated under the Dominion Companies' Act, with a capital of \$100,000 and office at Montreal, to carry on the business of electrical, mechanical and civil engineers and contractors, and in connection therewith to develop water powers, and to promote or acquire shares in companies having similar objects. The provisional directors are: V. E. Mitchell, E. F. Surveyor, C. M. Cotton, advocates; J. W. Weldon, barrister-at-law; S. L. LeHuray, accountant, all of Montreal.

C.P.R. ANNUAL MEETING.

At the annual meeting in Montreal Oct. 4, the Chairman of the Board, Sir Wm. C. VanHorne, presided. The President, Sir Thos. G. Shaughnessy, in moving the adoption of the report for the year ended June 30, 1904, which was published in our last issue, said: The 24th annual report gives evidence of the strong and satisfactory position of the company. Your gross revenue from traffic during the fiscal year was over fifty millions of dollars, and even this large sum should be exceeded by a considerable amount in the current year. The business conditions throughout Canada are at the moment more favorable than at any other time in the history of the company, and there would appear to be no reason for apprehending a change in the near future.

While in all the agricultural territory served by your lines the crops have been excellent, those of Manitoba and the two new provinces were most striking, ensuring a handsome return to the farmers, continued activity in every branch of trade and manufacture, and a large traffic to your lines.

As the result of the expenditure made during the past three or four years for the elimination of curvature, reduction of gradients and general improvements, I think that it may now be fairly claimed that in physical condition and capacity for the movement of traffic your railway between Montreal and the Pacific coast is, at least, in the front rank of transcontinental lines.

With an eye to the future it will be necessary to provide additional cars and locomotives, and for this purpose a resolution will be submitted authorizing the directors to make further capital expenditure to an amount not exceeding \$7,500,000.

The success attending the company's operations is in no small degree due to the excellent staff of officers and men in all the departments from the Vice-President down, whose intelligence in the performance of their respective duties and whose loyalty and devotion to the company could not be excelled.

The report was adopted, as also were the resolutions referring to the several matters, and authorizing various expenditures:

Authorizing the construction of the Wolseley-Reston branch, 12.2 miles, and authorizing the issue of 4½% consolidated debenture stock to the extent of £3,000 a mile to provide for the cost of the same.

Sanctioning and approving of the lease from the Nicola, Kamloops and Similkameen Coal and Ry. Co. to the C.P.R. for 999 years, of the whole of its railway as constructed, or hereafter to be constructed, including that portion now under contract for construction and partly constructed from Spence's Bridge to Nicola Lake, about 4½ miles, and all extensions and branches and their appurtenances, at an annual rental of a sum equal to the interest payable on all bonds of not exceeding 4½% per annum, which the N., K. and S. Coal and Ry. Co. may issue at the request of the C.P.R., interest to be guaranteed by the C.P.R., the aggregate of all such bonds not to exceed \$30,000 a mile of line, then constructed or under contract.

Authorizing the issue of 4½% consolidated debenture stock to defray the cost of two new steamers together with their equipment and auxiliaries, authorized to be constructed Oct. 5, 1904; and which are now under construction by the Fairfield Shipbuilding and Engineering Co., on the Clyde, Scotland, as follows: Empress of Britain (shipyard number 412) and Empress of Ireland (shipyard number 413),

The Kahn Trussed Bar

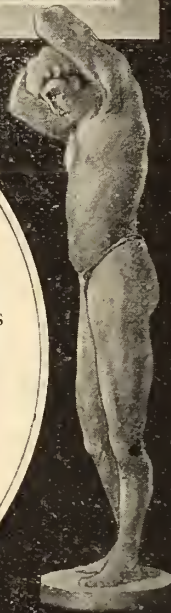
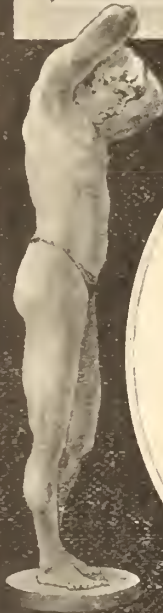


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THE CANADIAN RUBBER CO. OF MONTREAL, Limited.

SALES BRANCHES:

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FRONT & YONGE STS., - TORONTO, ONT.
89 PRINCESS STREET, - WINNIPEG, MAN.
403 CORDOVA STREET, - VANCOUVER, B.C.

respectively, with rigging, appurtenances and auxiliaries complete, at a cost of £800,000 sterling; each steamship to have a gross tonnage of about 14,500 tons, a length of 550 ft. between perpendiculars and 570 ft. over all; beam 65 ft. 6 in., a moulded depth of 40 ft. to upper deck, and to be furnished with quadruple expansion engines of the most modern type.

Approving and ratifying an agreement entered into between the British Columbia Electric Ry. Co., the Vancouver and Lulu Island Ry., Lord Strathcona and Mount Royal, R. B. Angus (as trustee), and the C.P.R. This agreement embodies a traffic arrangement for the operation by the British Columbia Electric Ry. Co., by electricity, for both passenger and freight traffic, of that part of the C.P.R.'s English Bay Branch, between Granville St. in Vancouver, and its junction with the Vancouver and Lulu Island Ry., together with the Vancouver and Lulu Island Ry. (now under lease to the C.P.R.) from the said point of junction to Stevenson, with a spur thereof upon the south side of False Creek, with the use of certain property appurtenant thereto mentioned in a schedule to the agreement, and provides, amongst other things, that the earnings, after paying the operating expenses and 4% to the C.P.R. upon the cost of the railway, and 4% to the Electric Ry. Co. upon the cost of equipping the railway electrically, are to be divided on the basis of 40% to this company, and 60% to the Electric Ry. Co.; such agreement to remain in force until Feb. 11, 1924, but in the event of the city of Vancouver acquiring the railways of the Electric Ry. Co. in February, 1919, the agreement shall then lapse.

Approving an agreement between the C.P.R. and the Spokane International Ry., which agreement provides, among other things, that the C.P.R. will procure the construction of a railway from near Yahk Station, B.C., to a point on the International boundary north of Bonner's Ferry, about 12 miles; that the Spokane International Ry. will construct a railway from the International boundary (where it will form a junction with the said other railway) to the city of Spokane, and also provides for the interchange of traffic between the said railways and for the division and apportionment of tolls in respect of the traffic upon the railways so to be constructed, for a period of fifty years from Jan. 1, 1905.

Authorizing the directors to enter into a lease from the Esquimalt and Nanaimo Ry. to the C.P.R. of the lines of the E. and N. Ry. as constructed or to be constructed, including the railway now constructed and in operation from Victoria to Wellington, on Vancouver Island, B.C., about 78 miles, for a term of 99 years at a rental equal to the interest at the rate of 4% per annum, payable half-yearly, on bonds guaranteed by the C.P.R. company, to be from time to time issued by the E. and N. Ry. with the consent in writing and under the seal of the C.P.R., the said bonds not to exceed the sum of \$30,000 per mile of the railway, branches and extensions constructed or under contract to be constructed; such lease to be in such form as may be approved of by the directors of this company, but it shall contain a clause to the effect that the E. and N. Ry. shall from time to time and in such manner as may be agreed upon by the boards of directors of the two companies, apply the net proceeds of all sales of land forming part of the land grant of the said company, towards the redemption of the bonds at par until the total amount of bonds outstanding shall be reduced to the sum of \$14,000 per mile of railway, branches and extensions con-

structed or under contract to be constructed.

Approving of the purchase of control of the St. John Bridge and Ry. Extension Co. at a cost of \$200,000.

Authorizing the expenditure on capital account of \$7,500,000 for additional locomotives, passenger and freight cars.

A resolution was also passed placing on record the sense of loss sustained by the company by the death of the late G. R. Harris, after 20 years of active service as a director.

The retiring directors, C. R. Hosmer, Hon. R. Mackay, D. McNicoll and R. G. Reid, were unanimously re-elected. They now hold office for a term of four years.

T. Skinner, director of the company resident in London, Eng., who has completed an inspection of the line, made a short address on the growth of the west, and the improvements on the line he had observed during his inspection.

The directors subsequently met, and the following elections were made: Chairman of the Board, Sir Wm. C. VanHorne; President, Sir T. G. Shaughnessy; Vice-President, D. McNicoll; Executive Committee: Chairman, Sir Wm. C. VanHorne; Lord Strathcona, Sir T. G. Shaughnessy, R. B. Angus, and E. B. Osler, M.P.

November Birthdays.

Many happy returns of the day to:

A. B. Atwater, Assistant to the 2nd Vice-President and General Manager G.T.R., for lines west of Detroit and St. Clair rivers, Detroit, Mich., born at Sheffield, Ohio, Nov., 1845.

W. F. Brougham, Local Right-of-Way and Lease Agent, C.P.R., Vancouver, B.C., born in Westmoreland, Eng., Nov. 25, 1865.

M. J. Butler, Deputy Minister of Railways and Canals, Ottawa, born at Deseronto, Ont., Nov. 19, 1856.

J. R. Cameron, Superintendent District 1, Canadian Northern Ry., Kamsack, Sask., born at Tiuro, N.S., Nov. 5, 1865.

H. J. Coffin, Trainmaster C.P.R., Brandon, Man., born at Gaspé Basin, Que., Nov. 23, 1859.

F. Conway, General Freight and Passenger Agent, Kingston and Pembroke Ry., Kingston, Ont., born at Ernestown, Ont., Nov. 19, 1850.

W. L. Crighton, Advertising Agent, Intercolonial Ry., Moncton, N.B., born at Derby, Eng., Nov. 9, 1871.

W. Downie, General Superintendent, C.P.R., Atlantic Division, St. John, N.B., born at Rock Currie, Ireland, Nov. 12, 1850.

L. Drago, Canadian Passenger Agent, New York Central Rd., Toronto, born in Raleigh Tp., Kent County, Ont., Nov. 7, 1860.

C. Drinkwater, Secretary and Assistant to the President, C.P.R., Montreal, born at Ashton-under-Lyne, Eng., Nov. 17, 1843.

Jos. Dubrule, Jr., Manager Canadian Pacific Car and Passenger Transfer Co., Prescott, Ont., born at Spencerville, Ont., Nov. 14, 1872.

F. W. Flanagan, General Passenger Agent C.P.R., London, Eng., born at Kingston, Co. Dublin, Ireland, Nov. 23, 1862.

W. Hendrie, Hamilton, Ont., railway promoter and contractor, and President of Hendrie & Co., cartage agents, G.T.R., born at Glasgow, Scotland, Nov., 1831.

C. R. Hosmer, director, C.P.R., born at Coteau Landing, Que., Nov. 12, 1851.

J. McGillivray, Superintendent Inverness Ry. and Coal Co.'s lines, Inverness, N.S., born at Nairn, Scotland, Nov. 13, 1867.

Jas. McLerie, Northwest Agent, Montreal and Lake Superior Line, Winnipeg, Man., born at Kilbarchan, Scotland, Nov. 6, 1850.

C. Murphy, Superintendent, C.P.R., Toronto, Ont., born Nov. 20, 1865.

P. A. Peterson, Chief Engineer, Guelph and Goderich Ry., Goderich, Ont., born at Niagara Falls, Ont., Nov., 1839.

H. J. Pettypiece, C.P.R. ticket agent, Forest, Ont., born near Amherstburg, Ont., Nov. 11, 1855.

J. Rennie, Master Mechanic, Caraquey Ry., Bathurst, N.B., born at St. John, N.B., Nov. 1, 1858.

W. G. Roche, contracting freight agent, Canadian Pacific Despatch, Detroit, Mich., born Nov. 3, 1877.

J. D. Rowe, Treasurer Central Ontario Ry., at Trenton, Ont., born at Ameliasburg, Ont., Nov. 7, 1864.

H. P. Sharpe, General Agent, Dominion Express Co., Toronto, born at Brockville, Ont., Nov. 24, 1864.

G. H. Shaw, Traffic Manager Canadian Northern Ry., Winnipeg, Man., born at Smith's Falls, Ont., Nov. 25, 1859.

J. C. Shields, Superintendent Mineral Range Rd., Hancock, Mich., born at St. Mary's, Ont., Nov. 29, 1863.

F. M. Spaidal, Superintendent district 2, Eastern Division, and Montreal Terminals, C.P.R., Montreal, born at Gananoque, Ont., Nov. 13, 1858.

H. P. Timmerman, General Superintendent, C.P.R., Ontario division, Toronto, born at Odessa, Ont., Nov. 6, 1856.

Arthur White, ex-Division Freight Agent, G.T.R., at Toronto, born at Hadleigh, Suffolk, Eng., Nov. 17, 1840.

G.T.R. SEMI-ANNUAL MEETING.

The following report for the half-year ended June 30, was submitted at the meeting in London, Eng., Oct. 12:

The following summary shows a comparison of the half-year's revenue account with that of the corresponding half-year, ended June 30, 1904:

June 30, 1904.		June 30, 1905.
£2,559,316	Gross receipts	£2,729,007 14 8
	Deduct—	
1,895,309	Working expenses, being at the rate of 70.48% as compared with 74.06% in 1904.	1,923,437 9 11
663,747	Net traffic receipts.	805,570 4 9
	Add—	
12,931	Amount received from the International Bridge Co.	12,930 12 9
6,507	Interest on bonds of Central Vermont Ry.	6,506 14 3
60,311	Interest on securities of controlled lines and on St. Clair tunnel bonds acquired by the issue of Grand Trunk 4% debenture stock	60,310 11 11
12,283	Balance of general interest account	22,315 8 4
£ 755,779	Net revenue receipts	£ 907,633 12 0

NET REVENUE CHARGES FOR THE HALF-YEAR.

June 30, 1904.		June 30, 1905.
£ 77,603	Rents (leased lines).	£ 77,603 0 9
488,721	Interest on debenture stocks and bonds of the Co.	488,745 19 10
45,461	Interest on debenture stock and bonds of lines consolidated with the G.T. Co.	45,836 3 8
611,785	Amount advanced to the Detroit, Grand Haven and Milwaukee Co., towards the payment of interest on its bonds, under agreements, half-year to June 30	612,185 4 3
10,384		10,414 18 7
611,169		622,600 2 10
124,610	Leaving a surplus of.	285,033 9 2
£ 755,779		£ 907,633 12 0

Adding the balance of £6,618 13s. 6d. at the credit of net revenue account on Dec. 31, 1904, to the above surplus for the past half-year of £285,033 9s. 2d., the total amount available for dividend is £291,652 2s. 8d.,

THE PINTSCH LIGHT AWARDED THE GRAND PRIZE ST. LOUIS, 1904

In the United States 170 railroads have equipped over 25,500 cars with Pintsch Light. In the World more than 135,000 cars, 6,000 locomotives and 1,800 buoys are using Pintsch Light, the test of experience having proven it the most economical, safe and reliable system for car lighting. Pintsch Gas Buoys adopted as standard by the United States Lighthouse Board. Highest awards taken at World's Expositions at Moscow, Vienna, St. Petersburg, London, Berlin, Paris, Chicago, Atlanta, Buffalo, and now St. Louis.

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Practical service for the past 18 years has demonstrated the reliability, efficiency and adaptability of the Safety Systems of Direct Steam and Hot Water Heating which are being applied in large quantities to railroad equipment. Straightport couplers. Automatic Steam Traps. 140 Railroads are using these devices, applied on 16,000 cars. Standard on Pullman cars.

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SAULT STE. MARIE, ONTARIO

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from which the directors recommend the payment of the following dividends, viz.:

Half-year's dividend on the 4% guaranteed stock	£135,597 19 1
Half-year's dividend on the first preference stock	85,420 15 0
Half-year's dividend on the second preference stock	63,210 0 4
	<u>£284,228 14 5</u>

leaving a balance of £7,423 8s. 3d. to be carried forward to next half-year's accounts.

The following table exhibits a comparison of the receipts for the half-years ending June 30, 1905 and 1904:

Description of Receipts.	1905.		1904.		Increase.		Decrease.	
	£	s.	£	s.	£	s.	£	s.
Passengers	741,480		661,240		80,240			
Mails and express	127,942		120,339		7,603			
Freight and live stock	1,781,685		1,694,101		87,584			
Miscellaneous	77,926		74,546		3,380			
Total	£2,729,008		£2,550,316		£168,692			

Description of Receipts.	1905.		1904.		Increase.		Decrease.	
	£	s.	£	s.	£	s.	£	s.
Passengers carried	4,303,795		3,957,814		345,981			
Average fare per passenger	41.35d.		41.02d.				0.37d.	
Tons of freight and live stock	6,563,332		5,927,094		636,238			
Average rate per ton	65 15d.		67 38d.				2.23d.	
Tons carried one mile	1,255,101.395		1,120,081.770		125,019.619			
Earnings per train mile	69.73d.		60.64d.					

The average rate per ton per mile on the entire freight business was 0.69c., compared with 0.72c. in the corresponding half-year.

The working expenses, excluding taxes, amounted in the half-year to £1,901,753 or 69.69% of the gross receipts, as compared with £1,879,121, or 73.42%; an increase in amount of £22,632, but a decrease in the proportion to the gross receipts of 3.73%.

The following table exhibits a comparison of the revenue expenditure, including taxes, for the half-years ended the June 30, 1905 and 1904:—

Description of Expenditure.	1905.		1904.		Increase.		Decrease.	
	£	s.	£	s.	£	s.	£	s.
Maintenance of way, and structures	268,664		246,575		22,089			
Maintenance of equipment	445,718		336,871		108,847			
Conducting transportation	1,131,437		1,225,754		94,267			
General expenses	75,884		69,021		5,863			
Taxes	21,684		16,445		5,239			
Total	£1,923,437		£1,895,569		£27,868			
Percentage of gross receipts	70.45		74.00				3.55	
Expenditure per train-mile	49.15d.		51.58d.				2.43d.	

Description of Expenditure.	1905.		1904.		Increase.		Decrease.	
	£	s.	£	s.	£	s.	£	s.
Passenger	3,984,703		3,774,258		210,445			
Freight	5,103,671		4,733,697		369,974			
Mixed trains	3,735,930		3,121,244		614,686			
Total	9,392,304		8,820,199		572,105			

From the foregoing statements it will be

observed that the gross receipts for the half-year show an increase of £169,692, or 6.63%; the working expenses, including taxes, an increase of £27,868, or 1.47%; and the train mileage an increase of 572,105, or 6.49%.

The total charges to the capital account amounted for the half-year to £104,843 15s. 10d. Of this amount the sum of £9,229 13s. 2d. was for discount and commission on £300,000 4% guaranteed stock issued during the half-year.

The actual expenditure on capital account was as follows:—

New works	£14,768 13 7
Double track	49,078 3 7
Land purchased	31,827 5 6
	<u>£95,614 2 8</u>

No additions to the stock at the expense of capital have been made during the half-year. Five passenger and ten mogul compound freight engines and 1,000 box cars, chargeable to revenue, have been purchased, and 28 brake vans, two coal cars, and one ice scraper have been built in the company's shops during the half-year.

In continuation of the policy of doubling the line between Hamilton and Sarnia, it has been decided to proceed with the work between Komoka and Hyde Park Junction (5.83 miles), and considerable progress has been made, as also between Kingscourt Junction and Komoka (27.43 miles), and it is anticipated that the work on these sections will be completed and the double line available for traffic before next winter.

The gross receipts of the Grand Trunk Western Ry. for the half-year amounted to £512,995, against £506,147 in 1904, an increase of £6,848, and the working expenses were £429,438, against £432,874, a decrease of £3,436, leaving a net profit amounting to £83,557, against £73,273, an increase of £10,284, compared with the corresponding period of 1904. The net revenue charges for the half-year were £76,121 against £72,745, so that there was a net revenue surplus for the half-year of £7,436 as compared with a surplus of £528 for the corresponding half-year of 1904. Deducting the net revenue deficiency of £4,637 for the half-year ended Dec. 31, 1904, from the above surplus of £7,436 and adding thereto the balance of £634 carried forward on June 30, 1904, the net revenue balance June 30 last, amounts to £3,433, which will admit of the payment of 1% on the second mortgage income bonds. The number of passengers carried during the half-year was 763,066, against 764,030, a decrease of 964, or 0.13%; and the passenger train receipts, including mails and express receipts, were £133,197, against £133,746, a decrease of £549, or 0.41%. The quantity of freight moved during the half-year was 1,563,857 tons, against 1,375,720 tons, an increase of 188,137 tons, or 13.67%, and the receipts from this traffic were £379,172, against £371,786 in 1904, an increase of £7,386, or 1.99%.

The gross receipts of the Detroit, Grand Haven and Milwaukee Ry. for the half-year were £134,771 against £117,746 in 1904, an increase of £17,025; the working expenses were £107,980, against £100,078, an increase of £7,902; thus leaving a balance of £26,791, against £17,668, an increase of £9,123, compared with the corresponding half-year of 1904. The net revenue charges for the half-year were £37,206, against £37,051 in 1904, so that there was a net revenue deficiency of £10,415, as compared with £19,383 for the corresponding period of 1904. The number of passengers carried during the half-year was 265,035, against 278,409, a decrease of 13,374, or 4.80%; and the passenger receipts, including mails and express receipts, were £42,431, against

£40,238, an increase of £2,193, or 5.45%. The quantity of freight moved was 616,540 tons, against 503,702 tons in 1904, an increase of 112,838 tons, or 22.40%; and the receipts from freight traffic were £88,204, against £73,783 in 1904, an increase of £14,421, or 19.55%.

The work in connection with the surveys for the location of the Grand Trunk Pacific Ry. has been energetically pressed forward, and a considerable proportion of the line between Winnipeg and the Rocky Mountains, and also of the Lake Superior branch, has been definitely located. A contract on favorable terms has been let for the construction of 275 miles from Portage la Prairie, about 55 miles west of Winnipeg, to Touchwood Hills, and a contract will immediately be made for the construction of the Lake Superior branch.

The Chief Engineer reports that the expenditure for maintenance of the company's property during the half-year ended June 30 last was \$107,500.00 more than the corresponding period of last year. The company's permanent way and works have been maintained in good condition.

The Superintendent of Motive Power reports the expenditure, mileage, etc., as follows:—

Half-year ended.	Total Expenditure.	Train Mileage.	Rate of Expenses per Mile.		
			Train	Engine	Car.
	Dollars.		Cents	Cents	Cents
June, 1905	3,841,087	9,392,304	40.91	31.82	2.65
" 1904	3,873,353	8,820,199	43.91	32.94	2.86

A decrease in expenditure of \$31,366.00 or 0.81% compared with an increase in train miles of 572,105, or 6.49%.

	Passenger Trains	Freight Trains	Mixed Trains
The average number of cars moved per train was	4.2	24.7	7.8
And for the corresponding period	4.1	24.9	7.7

During the half-year eight engines have been scrapped or sold. Five ten-wheel passenger engines and ten mogul compound freight engines have been purchased.

The actual stock at June 30, 1905, was 822 engines, Against the official figure of 803 " Being a surplus of 19 "

The revenue account was as follows:—

Receipts.	1905.		1904.		Increase.		Decrease.	
	£	s.	£	s.	£	s.	£	s.
Passengers	741,480		661,240		80,240			
Mails and express	127,942		120,339		7,603			
Freight and live stock	1,781,685		1,694,101		87,584			
Miscellaneous receipts, rents, tolls, etc.	77,926		74,546		3,380			
Total	£2,729,008		£2,550,316		£168,692			

TORONTO BOLT AND FORGING CO.

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OF ALL KINDS, INCLUDING



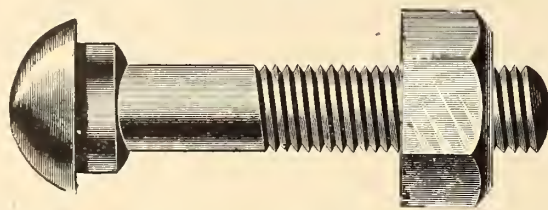
Track Bolts

Track Spikes

Lag Screws

Boiler and

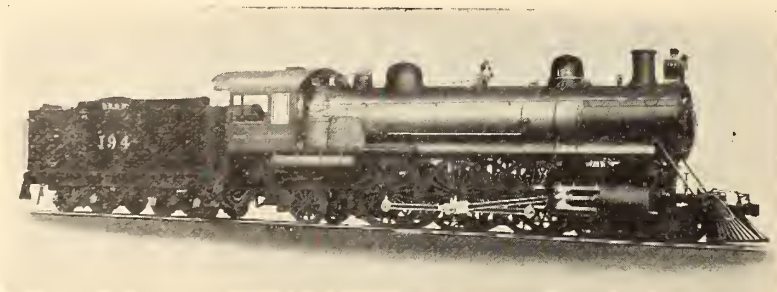
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Look The Illinois Central map over and consult

G. B. WYLLIE,

Canadian Passenger Agent,

210 ELLICOTT SQUARE, BUFFALO, N.Y.

EXPENDITURE, JUNE 30, 1905

	£	s.	d.
Maintenance of way and structures.....	9 84	268,664	7 8
Maintenance of equipment.....	15 60	425,718	4 7
Conducting transportation.....	41 47	1,131,486	10 6
General expenses.....	2 78	75,883	18 8
Total working expenses.....	69 69	1,901,753	1 5
Taxes.....	79	21,684	8 6
	70 48	1,923,437	9 11

Balance to net revenue account.	805,570	4	9
	£2,729,007	14	8

TRAIN MILEAGE.

June 30, 1904.	DESCRIPTION.	June 30, 1905.
3,774,258	Passenger trains.....	3,084,703
4,733,697	Freight trains.....	5,105,071
312,244	Mixed trains.....	303,930
8,820,199		9,392,304

At the meeting of shareholders in London, Eng., Oct. 12, Sir C. Rivers Wilson, President, congratulated the shareholders on the encouraging results and the prospects of the future. They were, he said, in excess of 1904, and compared favorably with 1903, which was a record year. He also congratulated the shareholders on their participation in the new G.T. Pacific line, and quoted from a speech of Sir Wilfrid Laurier, delivered at Quebec, describing the immense resources of the land through which the road would pass. Since the last report the revenue of the G.T.R. from July 1 to Sept. 7 shows £107,000 in excess of the corresponding period of last year, which was small. The Detroit and Toledo line had progressed, since its acquirement, far beyond anticipations. Formerly it did not pay the interest on the bonds, but now it is paying not only the charges, but clearing off arrears. Reverting to the G.T.P., the President said that the matter of the Winnipeg terminus would be settled in the course of a few weeks. Whether there will be a union station or not has not been decided. He also said that he had the assurance of the Canadian Government that they would commence work on the eastern division of the road immediately. The President also gave details of the terminals secured at Fort William, and a point on the Pacific 25 miles south of Port Simpson.

The report was adopted and the dividends recommended were approved.

Lake Superior Corporation.

The first annual report of the re-organized corporation owning the Sault Ste. Marie industries and railways, was presented at the annual meeting held in Jersey City, Oct. 4. It shows:

Interest on Investments, securities of subsidiary co's from net earnings.....	\$543,455.02
Net interest from banks, etc.....	42,084.20
	\$585,539.22
Coupons paid 1st mortgage bonds outstanding.....	\$452,174.60
General expenses, taxes, etc.....	98,562.14
	550,736.74
Balance Cr. Profit and Loss.....	\$ 34,802.48
ASSETS.	
Investments and securities of subsidiary companies.....	\$51,201,928.15
Cash.....	76,094.92
Collateral security.....	150,000.00
Treasury bonds.....	956,879.42
Furniture and fixtures.....	353.82
Due from subsidiary companies for advances).....	1,531,542.60
	\$53,916,798.91

In addition to the bonds in the Treasury, there have been set aside and placed to the credit of the Algoma Central and Hudson Bay Railway Company: Cash, \$61,652.67; first mortgage bonds, \$345,000.00, to be used for the extension of its line.

LIABILITIES.

Capital stock.....	\$40,000,000.00
First mortgage bonds.....	10,000,000.00
Income bonds.....	3,000,000.00
Bills payable.....	800,000.00
Canadian Improvement Co.....	4,677.30
Coupons unpaid, nos. 1 and 2.....	25,900.00
Due subsidiary companies.....	29,399.61
Suspense account.....	22,019.52
Profit and loss, carried forward.....	34,802.48
	\$53,916,798.91

The principal portion of the report is devoted to a reference to the transfer of the different properties from the Receiver to the new company, the restoration of working conditions, and the settlement of old indebtedness. The report then proceeds to state that the output of the rail mill was 12,138 tons of steel rails, fully meeting the extreme requirements of the Canadian railways. The Algoma Central & Hudson Bay Ry. and the Manitoulin & North Shore Ry., and the fleet of steamers have been operated profitably, mostly in carrying company's freight. The two traction companies at the Canadian and Michigan Soos show some loss for the year. The traffic is increasing, however, and it is expected will show better results the coming year. During the year 98,822 tons of steel rails were manufactured, and there were 11,262 tons of rails in stock on June 30, 1905.

No particulars are given as to the earnings of any of the separate companies. The subsidiary companies are eleven in number, and include the Algoma Central and Hudson Bay Ry., Manitoulin and North Shore Ry., British America Express Co., International Transit Co., Trans-St. Mary's Traction Co., and Algoma Steel Co.

Central Vermont Ry. Co.'s Report.

The sixth annual report of the directors of this company, which is controlled by the G. T. R. Co., for the year ended June 30, gives the following particulars:—

Gross receipts.....	\$3,557,775.71
Operating expenses.....	2,793,736.51
Balance.....	\$ 764,039.20
Taxes.....	97,759.73
Net earnings.....	\$ 666,279.47
Other income, interest on securities held by the company.....	10,840.00
Total income.....	\$ 677,119.47
Interest on bonds, rentals of leased lines.....	673,449.62
Net surplus over fixed charges.....	\$ 3,669.85

The results of operation for the year, as compared with the previous year, have been as follows:

REVENUE.	
Receipts from all sources, increase.....	\$ 33,484.61
EXPENDITURE.	
Maintenance of way and structures, increase.....	\$120,134.95
Maintenance of equipment, increase.....	1,327.46
Conducting transportation, decrease.....	97,394.92
General expenses, increase.....	4,267.76
Total operating expenses, increase.....	28,335.25
Taxes, decrease.....	1,537.06
Fixed charges, increase.....	5,662.52
Improvements, included in operating expenses, increase.....	69,904.70

The operation of the road has been satisfactory, the property has been well maintained, and the cost of all additions and improvements, amounting to \$203,071.29, has been included in operating expenses. The Brattleboro and Whitehall Rd. Co. having failed to pay when due the first mortgage bonds held by the New London Northern Rd., the latter company instituted foreclosure proceedings in the United States Circuit Court for the District of Vermont. Under decree of foreclosure, the New London Northern Co. became the owners of the property, organized the West River Rd. Co. and transferred the road to that company. An agreement was entered into with the New London Northern

Rd. Co. providing for a continuance of your lease of the line and for the standard gauging of that portion of the road between West Dummerston and South Londonderry, the New London Northern Rd. Co. guaranteeing the first mortgage bonds of the West River Rd. Co. to the amount of \$75,000, the proceeds of which are to be used in the payment of the cost of widening the gauge. One thousand box cars of 60,000 lbs. capacity, two café-parlor cars, four coaches, two smoking and two baggage cars have been acquired under a car trust agreement. The total cost of this equipment was \$704,507.35, of which \$84,507.35 has been paid in cash, the remainder, \$620,000, to be paid in 40 consecutive quarterly instalments, for which the company's notes for \$1,000 each, bearing interest at 4½% per annum have been issued. Notes to the amount of \$16,000 mature on March 1 and September 1, and to the amount of \$15,000 on June 1 and December 1 of each year. Interest payable quarterly. The equipment was needed for the proper accommodation of the business and it is confidently expected that it will enable us to still further increase both our freight and passenger traffic.

The report is signed by C. M. Hays, President. From the reports of officers appended, the following information is extracted:—

E. H. Fitzhugh, Vice-President, states that there has been charged to operating expenses \$203,071.29, expended on improvements and extraordinary expenditures distributed as follows:—New bridges, \$123,884.25; new tracks, sidings and spurs, \$634.22; new fuel and water stations, engine houses and turntables, \$423.81; new stations and warehouses, \$7,945.78; new steel rails (difference between value of old rails taken up and new rails put down), \$33,811.09; ballasting, \$7,320.30; new locomotives, \$27,000; new cabooses, \$64.84; new air brakes, \$1,990. The train mileage was: passenger, 1,047,197; freight, 1,352,966; mixed, 178,196; miles earning revenue, 2,578,359; piloting, switching, light running and work trains, 711,289; total engine miles run, 3,289,648. The car mileage was: passenger, 4,788,372; freight, 30,763,034; total car mileage, 35,551,406. The percentage of expenses to earnings was 78.52% as compared with 78.47% in the preceding year, an increase of .05%. The percentage of improvements included in operating expenses to the earnings, was 5.71%, as compared with 3.78% in the preceding year. The percentage of ordinary expenses, to the earnings, was 72.81% as compared with 74.69% in the preceding year. The number of tons carried one mile was 267,815,068, an increase of 7,809,203; the earnings per freight train mile were \$1.60, an increase of 1.7c., and the earnings per ton per mile, 0.88c., a decrease of 0.02c. The number of passengers carried one mile, 42,393,798, shows an increase of 1,276,857; the earnings per passenger train mile, \$1.02, same as previous year, and the earnings per passenger mile, 2.29c., a decrease of 0.02c. Thirty-five miles of track on the 3rd district have been relaid with new 80 lb. rail, releasing 75 lb. rail, which has been relaid on the 1st district between Millers Falls and Palmer, and, with the exception of a few tons reserved for branch lines, the 56 lb. rail taken up has been sold. Passing track at Chadwick Hill on the Richford branch has been extended 300 ft., and 652 ft. of new sidings laid to industries along the line. Fourteen miles of track on the Richford branch have been ballasted with gravel. Twenty-one miles of track have been surfaced and 177,162 new ties put in. The line between West Dummerston and South Londonderry has been changed to standard gauge and the work of renewing bridges, strengthening embankments, reducing curvature, ballasting track, and renewing ties, is now under way and will be completed by Dec. 1. Under an agreement with the owners of the Bethel

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Ruggles' Rotary Snow Plows

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Cleaned, Unexcelled for
Strength, Unsurpassed
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MOOSE, CARIBOU, DEER

OPEN SEASON:

QUEBEC—Sept. 1st to Dec. 31st.

NEW BRUNSWICK—Sept. 15th to Nov. 30th.

NOVA SCOTIA—(Moose only)—Oct. 1st to Jan. 1st.

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HALIFAX and the SYDNEYS

Give every satisfaction to shippers

Granite Ry., a spur line is being constructed from a point on the main line near Bethel, Vt., to the White Granite Quarries, five miles distant. Nine new Richmond type compound consolidation engines have been purchased and placed in freight service. During the year, 62 engines have received heavy, and 65 light repairs. Two café-parlor cars, four coaches, two smoking cars, two baggage cars and 1,000 30-ton capacity box cars have been acquired and placed in service. Twenty-five freight cars have been rebuilt, 18 equipped with air brakes, and 650 with pipe for train line. One combination passenger car has been rebuilt and one coach and one combination car received extensive repairs. The weather during the winter, was, as usual, quite severe and the cost of maintenance and operation consequently heavy, but by reason of a slight reduction in the cost of locomotive coal, and the use of the new engines and cars above referred to, a decrease of \$97,394.92 in the expense of conducting transportation, as compared with the preceding year, has been effected.

The company owns 483.6 miles of track, including 6.2 miles of double track, and 105.9 miles of yard tracks, sidings and spur tracks, and operates 206.9 miles of leased lines, including 47.4 miles of yard tracks, sidings and spur tracks.

The condensed balance sheet is as follows:

ASSETS.	
Cost of road and equipment	\$13,839,510.92
Bonds deposited with Trustee	1,000,000.00
Materials and supplies on hand	171,056.38
Cash on hand and in transit	140,323.94
Investment in bonds	267,779.68
Equipment renewals	628,635.19
Sundry accounts collectable:	
Due from agents	83,676.60
Due from U.S. and Canada, carrying mails	20,656.75
Due from sundry railroads and individuals	449,753.33
Advances fast freight line, account working fund	9,950.00
	\$16,611,342.79
LIABILITIES.	
First mortgage bonds	\$12,000,000.00
Common stock	3,000,000.00
Interest due	17,138.00
Interest accrued not due	78,641.17
Taxes accrued not due	57,360.33
Sundry accounts payable:	
Vouchers and pay rolls	436,510.79
Sundry railroads and individuals	125,911.51
Notes payable	275,000.00
Car trust notes	605,000.00
Profit and loss	15,780.99
	\$16,611,342.79

At the annual meeting at St. Albans, Vt., Oct. 10, the report was adopted and the directors were re-elected. Following are the officers and directors for the current year:—President, C. M. Hays, Montreal; Vice-President, E. H. Fitzhugh, Montreal; other directors: G. C. Jones, E. C. Smith, St. Albans, Vt.; W. S. Webb, Shelburne, Vt.; J. W. Stewart, Middlebury, Vt.; J. G. McCullough, North Bennington, Vt.; E. H. Baker, H. B. Day, Boston, Mass.; S. E. Kilner, New York; A. Tuttle, Fairhaven, Vt.; C. P. Smith, Burlington, Vt. The only change in the directorate is that G. C. Jones, the General Manager, succeeds C. W. Wetters, the company's solicitor. W. H. Chaffee is Treasurer and Clerk; W. G. Crabbe, Auditor. The executive committee consists of C. M. Hays, Chairman; E. H. Baker and E. H. Fitzhugh.

Canadian Northern Ry. Earnings, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904-05, from July 1, 1905:

Earnings.	Expenses.	Net Earnings.	Increase or Decrease.
July, \$395,100	\$252,600	\$142,500	\$51,400+
Aug., 357,900	246,200	111,700	12,200+
\$753,000	\$498,800	\$254,200	\$63,600+

The average mileage in operation during this period was 1876 against 1399 in 1904.

Approximate earnings for Sept., \$378,500, against \$292,700 for Sept., 1904.

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1903-04, from July 1, 1904:—

Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July, \$4,629,174.95	\$2,991,397.29	\$1,647,652.14	\$188,125.52+
Aug., 4,796,733.98	3,005,088.07	1,791,645.91	263,715.48+

\$9,425,908.93 \$5,996,485.36 \$3,429,423.57 \$451,841.00+

Approximate earnings for Sept., \$4,816,000 against \$4,171,000 for Sept., 1904.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Aug., \$285,221.01; net earnings, \$103,964.63 against \$237,229.27 gross and \$91,407.40 net for Aug., 1904. Net earnings for two months ended Aug. 31, \$206,775.40 against \$178,624.90 for same period 1904. Approximate earnings for Sept., \$266,458 against \$231,400 for Sept., 1904.

MINERAL RANGE RY.—Approximate earnings for Sept., \$66,717, against \$55,947 for Sept., 1904.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Aug., \$916,308.44; net earnings, \$303,996.73 against \$609,577.89 gross and \$265,271.92 net for Aug., 1904. Net earnings for two months ended Aug. 31, \$849,015.05 against \$569,439.61 for same period 1904. Approximate earnings for Sept., \$942,831 against \$752,902 for Sept., 1904.

Canadian Pacific Railway Land Sales.

	Acres.		Amount.	
	1905.	1904.	1905.	1904.
July	58,477.37	36,425.75	\$304,795.23	\$177,473.94
Aug.	58,542.44	15,669.99	327,579.03	88,735.88
Sept.	111,479.71	16,470.02	556,642.64	73,042.96
	228,499.52	68,565.67	\$1,189,017.50	\$339,852.78

Grand Trunk Ry. Earnings, Expenses, etc.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1905.	1904.	Increase.	Decrease.
July	\$3,059,675	\$3,013,149	\$46,526	....
Aug.	3,301,254	3,108,137	193,117	....
Sept.	3,499,393	3,182,972	226,391	....
	\$9,770,292	\$9,304,258	\$466,034	....

The following figures relate to the individual lines, and are made out in sterling:

GRAND TRUNK RY. CO.

Revenue for Aug.:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£545,800	£330,300	£215,500	...
Working expenses	369,000	354,300	14,700	...
Net profit	£176,800	£176,000	£ 800	....

Aggregate from July 1 to Aug. 31:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£1,065,000	£1,047,800	£17,200	....
Working expenses	724,400	708,300	16,100	....
Net profit	£341,200	£339,500	£1,700	....

GRAND TRUNK WESTERN RY. CO.

Revenue for Aug.:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£100,700	£75,300	£25,200	...
Working expenses	80,700	74,600	6,100	....
Net profit	£20,000	£ 900	£19,100	....

Aggregate from July 1 to Aug. 31:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£181,900	£150,400	£31,500	...
Working expenses	156,300	149,000	7,300	....
Net profit	£25,600	£ 1,400	£24,200	....

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.

Revenue for Aug.:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£ 31,700	£ 32,800	....	£ 1,100
Working expenses	19,400	20,600	....	1,200
Net profit	£12,300	£12,200	£ 100	....

Aggregate from July 1 to Aug. 31:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£ 60,200	£ 59,500	£ 700	....
Working expenses	39,200	39,600	....	£ 400
Net profit	£ 21,000	£ 19,900	£ 1,100	....

Aggregate from July 1 to Sept. 30:

	1905.	1904.	Increase.	Decrease.
Grand Trunk	£1,634,980	£1,586,950	£48,030	....
G. T. Western	287,146	237,227	49,919	....
D. G. H. & M.	80,211	87,656	....	1,445
Total	£2,002,337	£1,911,833	£90,504	....

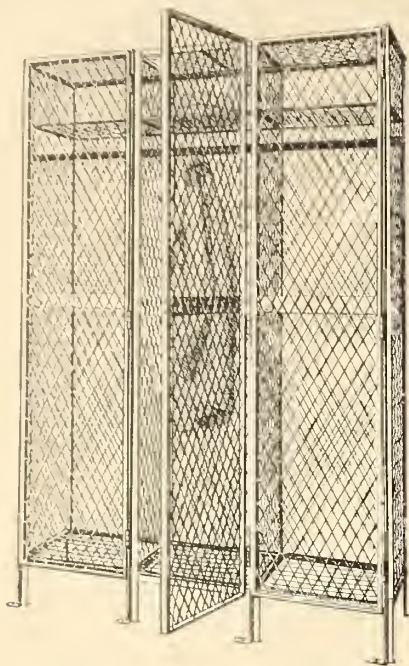
Canadian Freight Association.

The usual quarterly meeting was held in Montreal, Oct. 5, when R. L. Burnap, G.F.A., Central Vermont Ry., St. Albans, Vt.; R. W. Youngs, Division Freight Agent, Pere Marquette Rd., London, Ont., and G. L. Nelson, Division Freight Agent, G.T.R., Portland, Me., were elected active members. W. P. Hinton, formerly General Freight and Passenger Agent Canada Atlantic Ry., having been appointed to the G.T.R. passenger department, resigned as an active member and member of the Advisory Committee, and was elected an honorary member.

B. B. Mitchell, General Freight Traffic Manager, Michigan Central Rd., was elected to succeed W. P. Hinton, on the Advisory Committee, and J. E. Dalrymple, General Freight Agent G.T.R., was elected a member of the Classification Committee.

The Association passed the following resolution: Whereas, Mr. John Earls, our Secretary-Treasurer, has resigned, and, whereas, in response to the expressed sentiment of the members it is desired that a fitting tribute be paid to his work, it is resolved, that the Association hereby place on record their appreciation of his long, faithful and intelligent services, of his wise counsels, of the unflinching courtesy which he has shown to the members individually, and of his fairness and impartiality in conducting its proceedings. To his lasting honor be it remembered that no railway officer in active service in Canada has had a longer term of service in the freight traffic work, that he has had an important part in the development of the railway traffic and industrial interests of Canada, and to that he has given the best years of his life. While in the service of the Grand Trunk Railway from 1862 to 1896, a period of 34 years, in addition to his regular duties, which were often complex and arduous, he freely gave of his time and ripe experience to the work of compiling, in the interests of all the railways of Canada, many of the freight traffic regulations, the freight rate schedules which form the basis of many of our present freight tariffs, as well as the Canadian Freight Classification, becoming a most distinguished authority on that technical work. He was one of the founders of the Canadian Freight Association, becoming in April, 1896, its first Secretary-Treasurer, which office he held with distinction until August, 1905. During his railway career he has witnessed the remarkable development of the vast railway systems of Canada, and, as much as any one man, has assisted in framing the legislation of the Association and of its various committees, which has proven so important an element in harmonizing competing interests and giving to the public the benefit of fair and uniform traffic regulations. While severing official ties, we wish him and his family still many years of life and happiness.

The abstraction of water above the falls at Niagara Falls, Ont., and N.Y., for power development purposes, according to several authorities is likely to lessen, to an appreciable extent, the quantity of water going over the falls. An alternative proposition has been suggested to the present one of taking water from the upper river through tunnels to the power houses on the lower river, and that is to erect a dam at the terminus of the escarpment, just above Lewiston, N.Y. The writer of the article referred to says that a dam 1,000 ft. long would raise the water in the river 100 ft. without changing the elevation of the pool at the foot of the cataract. The basin provided by the embankment, he claims, would supply a practically permanent and unvarying force of 1,500,000 h.p.



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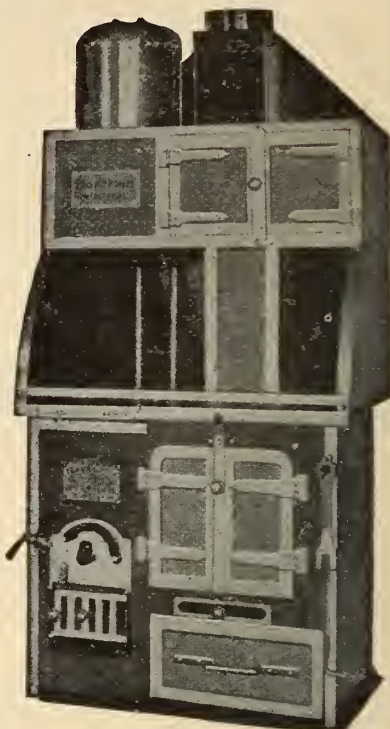
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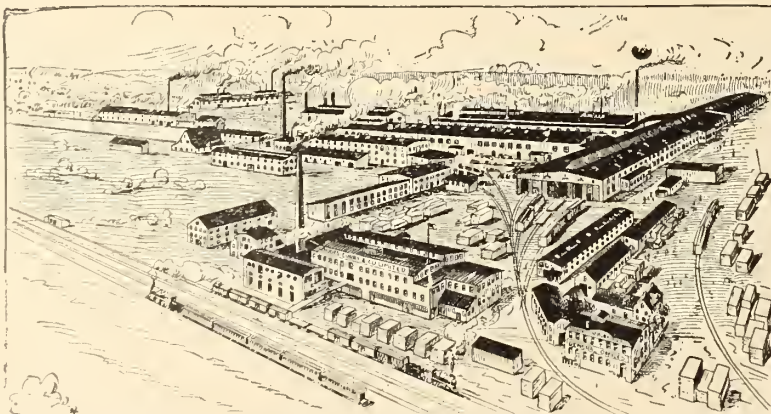
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G.T.R. Subsidiary Companies.

The annual meetings of the various subsidiary companies of the G.T.R. in the United States were held in Detroit recently. The several companies, being almost wholly owned by the G.T.R., do not issue reports and statements of accounts to the public. Following are the directors for the current year:—

GRAND TRUNK WESTERN RY.—C. M. Hays, E. H. Fitzhugh, F. H. McGuigan, Montreal; W. J. Spicer, Detroit, Mich.; A. Dixon, Chicago, Ill.; A. W. Wright, Saginaw, Mich.; L. R. Reid, Valparaiso, Ind. CHICAGO, DETROIT AND GRAND TRUNK JCT. RY.—C. M. Hays, E. H. Fitzhugh, W. H. Biggar, K.C., J. W. Loud, Montreal; A. Dixon, Detroit.

DETROIT, GRAND HAVEN AND MILWAUKEE RY.—C. M. Hays, E. H. Fitzhugh, F. H. McGuigan, Jos. Hobson, J. W. Loud, Montreal; W. J. Spicer, J. Pridgen, jr., A. P. Sherrill, A. B. Atwater, Detroit. GRAND TRUNK JCT. RY.—C. M. Hays, E. H. Fitzhugh, J. W. Loud, Montreal; F. A. Howe, Chicago; W. J. Spicer, Detroit.

TORONTO, SAGINAW AND MUSKEGON RY.—C. M. Hays, E. H. Fitzhugh, F. H. McGuigan, J. W. Loud, Montreal; C. J. Church, C. W. Middleton, Greenville, Mich.; A. F. Temple, Muskegon, Mich.

MICHIGAN AIR LINE RY.—C. M. Hays, E. H. Fitzhugh, W. H. Biggar, K.C.; J. W. Loud, Montreal; W. J. Spicer, Detroit.

ST. CLAIR TUNNEL CO.—C. M. Hays, E. H. Fitzhugh, F. H. McGuigan, W. H. Biggar, K.C., Jos. Hobson, J. W. Loud, Montreal; W. J. Spicer, Detroit.

INTERNATIONAL BRIDGE CO.—C. M. Hays, E. H. Fitzhugh, F. H. McGuigan, W. H. Biggar, K.C., Jos. Hobson, J. W. Loud, Montreal; H. W. Sprague, Buffalo, N.Y.

Mackenzie, Mann & Co.'s Eastern Lines.—C. W. Spencer, General Manager, has opened offices in the Imperial Bank Building, 286 St. James St., Montreal. The offices of Guy Toombs, General Freight and Passenger Agent, Great Northern Ry. of Canada, have been moved from the corner of Moreau and St. Catharine streets; and the office of R. H. Bell, Travelling Freight and Passenger Agent, has been moved from the Board of Trade Building to the Imperial Bank Building. The construction engineer's office for the Quebec portion of the system will also be located there.

The Canadian Fairbanks Co. has completed its contract with the Canada Car Co., Montreal, for shafting, universal giant hangers, Oneida split pulleys, couplings, rawhide pinions and other transmission material.

The Pratt & Whitney Co., of Hartford, Conn., has purchased a plant in Dundas, Ont., for the manufacture of its full line of small tools, taps, reamers, milling cutters, punches, dies, etc. The building is a modern structure and the power plant is already in place. The machinery equipment is being got ready and will be sent there and operations begun immediately. This plant will also include a department for manufacturing a full line of twist drills, an equipment of machinery having been purchased for this purpose. The output of this new factory will be handled by The Canadian Fairbanks Co., Ltd., which will have the exclusive sales agency for Canada.

The 33rd annual convention of the American Association of General Passenger Agents was held in Mexico City, Mexico, Oct. 17, and following days. Among the items of business to be transacted were the approval of a resolution prepared by a committee expressive of appreciation of the 25 years' services as Secretary, of A. J. Smith, now Vice-President; and reports from auxiliary associations. The Canadian Ticket Agents' Association was not represented on this occasion, its annual convention being in session in Portland, Me., at the same time; neither was the American Association of Baggage Agents, of which J. E. Quick, Toronto, is Secretary, represented. Of the new business one important matter considered was the representation of Canadian lines on Standing Committees.

Railway Equipment Notes.

The C.P.R. has placed an order for two 3½ yard Atlantic type steam shovels with the Locomotive and Machine Co. of Montreal.

We are officially advised that the press report to the effect that the G.T.R. will at once order 2,000 freight cars in the W.S. is erroneous.

The Central Vermont Ry. has arranged to place orders for additional freight cars and engines, but has not definitely decided as to the number of each required.

The Intercolonial Ry. has placed an order for five sleeping and baggage cars, and 75 box cars, 60,000 lbs. capacity, with the Crossen Car Manufacturing Co., Cobourg, Ont.

The Salisbury and Harvey Ry. does not propose purchasing any more rolling stock this year. It was reported recently as likely to be in the market for additional cars, etc., at an early date.

The Boston and Maine Rd. includes among its rolling stock 10 passenger and four baggage cars, 30.50 % of which is owned by the Boston and Lowell Rd., 31.67 % by the C.P.R., and 37.83 by the Concord and Montreal Rd.

The Intercolonial Ry. between Sept. 18 and Oct. 17 added four first-class passenger coaches to its rolling stock from Rhodes, Curry and Co., Amherst, N.S. The I.C.R. is not at present in the market for any additional rolling stock.

The Canadian Northern Ry. has placed orders for four locomotive tenders having a capacity of 5,000 imp. galls; and 10 tons of coal, from the Canada Foundry Co., Toronto. These tenders will be built on steel channel frames and have Simplex truck bolsters, and Susemihl roller side bearings.

The Intercolonial Ry. is reported to have placed orders for 40 locomotives—16 Pacific type passenger locomotives with the Locomotive and Machine Co., of Montreal; 20 consolidation freight locomotives with the Canadian Locomotive Co., Kingston, Ont.; and four switching locomotives with the Canada Foundry Co., Toronto.

The C.P.R. recently utilized natural gas for lighting the Governor-General's car, while on the Western Division. The gas was supplied at Medicine Hat, Alta. No action has, we are advised, been taken in the direction of having the cars on the Crow's Nest Pass line lighted by natural gas, or in the way of the adoption of the gas generally as press reports had stated.

The Canadian Northern Ry. has received the following additional rolling stock: 200 box cars, 30-ton capacity, 100 from Rhodes, Curry & Co., Amherst, N.S., and 100 from the Crossen Car Manufacturing Co., Cobourg, Ont.; five vestibuled day coaches from the Crossen Car Manufacturing Co., and three 60 ft. baggage cars on the C.N.R. standard 80,000 lbs. capacity trucks from Rhodes, Curry & Co.

The Canada Car Co., Montreal, has begun work on an order for 1,000 box cars, 30-ton capacity, for the Grand Trunk Ry. These cars are to be 37 ft. long, 9 ft. 1 in. wide, and 13 ft. 4 in. high. The company has also on hand an order for 50 passenger coaches for the G.T.R., and for box cars for the Grand Trunk Pacific Ry., to be duplicates of those under construction for the G.T.R.

The G.T.R. has placed an order for 15 consolidation and 10 10-wheeled locomotives with the Locomotive and Machine Co. of Montreal. The designs have not yet been fully worked out in all their details, but they are to be more on the lines of the Central Vermont Ry. consolidations and 10-wheelers, and are at the same time to conform, as far as possible, to the former G.T.R.

standards in details and shop practice. The consolidations are to be Richmond compounds, and are to be a departure from the company's former standard mogul locomotives. The 10-wheelers are to be simple, and lighter than the former G.T.R. standard 10-wheelers.

Following are general specifications of the 15 10-wheel locomotives, for which the C.P.R. has placed an order with the Canadian Locomotive Co., Kingston, Ont.:

WEIGHT.—In working order, on drivers, 142,000 lbs.; total, 190,000 lbs.; tender, loaded, 126,000 lbs.

WHEEL BASE.—Rigid, 14 ft. 10 in.; total, 26 ft. 1 in.; and tender, 54 ft. 6 in.

WHEELS.—Diameter of driving wheels, 63 in. centres, 56 in.; material, cast steel.

JOURNALS.—Driving, main, 9½ by 12 in.; f and b, 9 by 12 in.

CYLINDERS.—Diameter, 21 in.; stroke, 28 in.

BOILER.—Type, radial stayed with wide fire box, working pressure, 200 lbs.; no. of tubes and diameter, 248 2 in., and 22-5 in.; length, 14 ft. 8 in.

TENDER.—Style of tank, hopper bottom, water capacity, 5,000 imp. galls.; coal capacity, 10 tons, style of truck, 4 wheels; diameter of wheels, 34 in.; bend of wheels, wrought iron centres, steel tire, diameter and length of journals, 5½ by 10 in.

SPECIAL FITTINGS.—Simplex brake beams, Simplex bolster, Susemihl side bearings to tender, C.P.R. superheater and Westinghouse American brakes to engine.

The Locomotive and Machine Co., of Montreal, is building for the C.P.R. 30 freight and passenger locomotives of the 10-wheel "700" class, delivery to be made at the rate of three per week from Jan. 1, 1906. These locomotives are exact duplicates of the 30, delivery of which has just been completed, the specifications of which follow:—

CYLINDERS.—Type, piston, diameter, 21 in., stroke, 28 in.; piston rod, 3½ in. diameter.

TRACTIVE POWER.—33,320 lbs.

WHEEL BASE.—Driving, 14 ft. 10 in.; rigid, 14 ft. 10 in.; total, 26 ft. 1 in.; engine and tender, 54 ft. 6 in.

WEIGHT.—In working order, 190,000 lbs.; on drivers, 142,000 lbs.; engine and tender, 316,000 lbs.

HEATING SURFACE.—Tubes, 2,234 sq. ft., firebox 166 sq. ft.; arch tubes, 28 sq. ft.; total, 2,428 sq. ft.; grate area, 50 sq. ft.

AXLES.—Driving journals, main, 6 x 10 in., engine truck journals, diameter, 6 x 10 in.; tender, 5½ x 10 in.

BOILER.—Type, extended wagon top, radial stayed outside diameter first ring, 76½ in., working pressure, 200 lbs.; fuel, bituminous coal.

FIREBOX.—Type, wide; length, 102½ in.; width 69½ in.; thickness of crown, ¾ in.; tube, ½ in.; sides 5-16 in.; back, ¾ in.; water space, front, 5 in.; sides, 4½ in.; back, 3½ in.

TUBES.—No. 244, of 2 in. diameter, and 44 of 5 in. diameter; length, 14 ft. 4 in.

BOXES.—Driving and others, cast steel.

BRAKE.—Driver and tender, Westinghouse, air signal, Westinghouse, pump, 11 in. left hand, reservoir, 50,000 cubic inches.

ENGINE TRUCK.—Four wheel

GRATE.—C.P.R. cast iron rocking.

SMOKE STACK.—Diameter, 14½ in. inside, top above rail, 15 ft. 2 in.

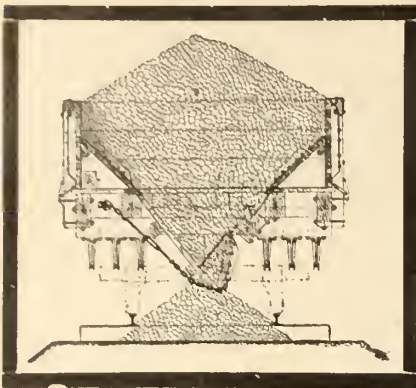
TENDER.—Frame, C.P.R. standard, tank, water bottom; tank capacity, 5,000 imperial gallons, fuel capacity, 10 tons.

VALVES.—Travel, 6 in.; steam lap, 1½ in. ex. lap, 3-32 in.; setting, line and line.

WHEELS.—Driving, diameter, outside tire, 63 in.; centres, diameter, 56 in.; material, cast steel, engine truck, diameter, 31 in.; kind, C.P.R. standard, tender, 34 in.; wrought iron disc.

In reference to the withdrawal of export freight rates from Ontario over the Intercolonial Ry. to Maritime Province ports, about which the Halifax Board of Trade recently complained, we are informed that the rates were withdrawn by the G.T.R. because of an order received from the Railway Commission, under which a new basis of export rates was made to apply. The new rates have been in effect since the beginning of Oct.

The Robb Engineering Co., Amherst, N.S., has recently supplied the following engines and boilers: a 300 h.p. Robb-Armstrong tandem engine, Canadian Northern Coal and Ore Dock Co., Port Arthur, Ont.; two 400 h.p., one 350 h.p., and three 100 h.p. Robb-Armstrong Corliss engines, J. R. Booth, Ottawa; two 350 h.p. Robb-Armstrong vertical engines for the Napanee, Ont., municipal lighting plant; two 100 h.p. boilers and one 150 h.p. engine to W. K. Lowden, St. Lambert, Que.



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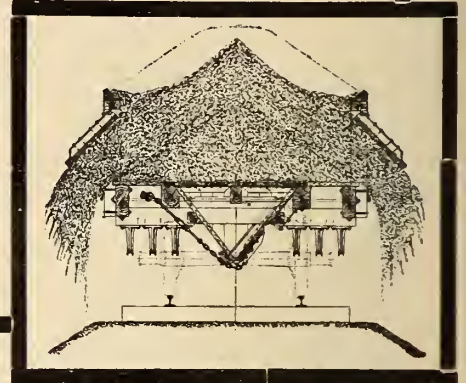
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Canadian Ticket Agents' Association.

The annual trip of the Canadian Ticket Agents' Association, which took place this year to Portland, Me., while not nearly the most largely attended, was certainly one of the most pleasant in the Association's history. Perfect weather, excellent arrangements and an exceedingly hearty welcome by the people of Portland, combined to make the trip one that will long be remembered by those who were fortunate enough to participate in it. The party numbered 121, of whom 42 were ladies. The attendance on the three previous trips was as follows: 1902, Washington, D.C., 210; 1903, Sydney, N.S., 128; 1904, St. Louis, Mo., 206. The following members went on the Portland trip: T. E. Attwood, C.P.R., Walkerton; A. H. Baird, C.P.R., Paris; R. A. Bennett, G.T.R., Smith's Falls, and wife; W. F. Bleecker, C.P.R., Marmora, and wife; J. L. Boyes, G.T.R., Napanee, and wife; A. C. Brown, C.P.R., Guelph, and wife; F. W. Buggy, G.T.R., Whitney, and wife; W. Buntin, G.T.R., Peterboro'; Alex. Calder, C.P.R., Winnipeg, wife and daughter; B. Caswell, C.P.R., Smith's Falls; R. Clanchan, C.P.R., Glencoe, and wife; W. H. Clancy, G.T.R., Montreal; J. Clark, C.P.R., Renfrew, and wife; C. R. Coleman, C.P.R., Truro, N.S.; Capt. G. C. Coles, C.P.R., Collingwood; R. Cox, C.P.R., Enterprise; R. J. Craig, C.P.R., Cobourg, and wife; E. de la Hooke, G.T.R., London, and wife; J. F. Dolan, Richelieu and Ontario Navigation Co., Montreal, and wife; F. B. Edgcombe, C.P.R. and I.C.R., Fredericton, N.B., and wife; A. W. Flack, G.T.R., Cornwall, and wife; C. H. Foss, G.T.R., Sherbrooke, and wife; A. Grant, C.P.R., Perth; J. P. Hanley, G.T.R., Kingston; F. E. Hannington, I.C.R. and C.P.R., St. John, N.B., and wife; A. M. Hare, G.T.R., and Wabash Rd., Tillsonburg, and wife; W. H. Haynes, G.T.R., Campbellford; F. R. Hodgins, G.T.R., Clinton, and wife; C. E. Horning, G.T.R., Toronto, and wife; T. Howard, C.P.R., Hastings; E. E. Hurdle, C.P.R., Sault Ste. Marie; J. H. Jackson, C.P.R., Georgetown; W. Jackson, C.P.R., Clinton, and wife; G. A. Joyce, C.P.R., Woodstock; J. Kidd, C.P.R., Goderich, and wife; G. D. LaCourse, G.T.R., Berlin; T. Long, C.P.R., Port Hope, and wife; C. H. McDougall, C.P.R., Walkerton; R. Macfarlane, C.P.R., Durham; W. H. McFarlane, C.P.R., Paisley, and wife; W. McIlroy, C.P.R., Peterboro'; W. H. C. Mackay, C.P.R., St. John, N.B.; M. McNamara, G.T.R., Walkerton, and wife; J. Meekison, C.P.R., Strathroy, and wife; H. W. Mills, G.T.R., Sarnia, and wife; W. B. Moorhouse, C.P.R., Sault Ste. Marie; F. C. Muller, Michigan Central Rd., Springfield; C. A. Nettleton, C.P.R., Penetanguishene, and wife; F. A. Parent, G.T.R., Casselman, and wife; R. J. Parker, G.T.R., Forest; H. J. Pettypiece, C.P.R., Forest, and daughter; J. T. Rhind, Stewiacke, N.S., and wife; A. C. Rorabeck, G.T.R., North Bay, and wife; C. H. Rose, Bay of Quinte Ry., Tamworth, and wife; W. J. Taylor, G.T.R., Tweed; B. Travers, G.T.R., Paris, and wife; J. L. Thomson, Prince Edward Island Ry., Charlottetown, P.E.I., wife and daughter; B. H. Turner, C.P.R., Little Current, and wife; C. L. VonGunten, G.T.R., Blenheim; S. Wagar, C.P.R., Tamworth; H. F. Whittier, G.T.R., Trenton, and wife; F. W. Wood, C.P.R., Campbellford.

The following were guests of the Association: J. N. Bastedo, P.A. Sante Fe Rd., Detroit Mich.; B. H. Bennett, G.A., Chicago and Northwestern Ry., Toronto; M. H. Bolreer, D.P.A., Mobile and Ohio Rd., Chicago, and wife; W. T. Doekrill, T.P.A., Canadian Pacific Ry., Toronto, and daughter, Mrs. McRae; L. Drago, C.P.A., New York Central Rd., Toronto; C. B. Foster, D.P.A., Canadian Pacific Ry., Toronto, J.

O. Goodsell, T.P.A., Union Pacific Rd., Toronto; D. W. Hatch, T.A., Sante Fe Rd., Montreal; F. T. Hendry, G.A., Santa Fe Rd., Detroit, Mich.; A. Lalonde, C.P. & F.A., Boston & Maine Rd., Montreal; F. R. Perry, D.P.A., Canadian Pacific Ry., St. John, N.B.; J. J. Rose, T.P.A., Canadian Pacific Ry., Toronto; J. W. Shaw, M.D., Clinton, Ont., and wife; A. C. Turpin, G.A.C.D., Chicago, Rock Island and Pacific Ry., Buffalo, N.Y., and wife; J. A. Yorick, C.P. & F.A., Chicago, Burlington and Quincy Ry., Toronto, and Acton Burrows, Publisher of THE RAILWAY AND SHIPPING WORLD, the official organ of the Association.

The party assembled at Montreal, leaving there on Saturday, Oct. 14, at 8 a.m., in a special train of vestibuled cars on the G.T.R. A stop of 15 minutes was made at Richmond, Que., and Gorham, N.H., was reached at 2.20 p.m., and an hour's stop made for dinner at the Mount Madison hotel. Portland was reached half an hour ahead of time, at 5.30, after a very pleasant run, the scenery of the eastern townships of Quebec and of Vermont, New Hampshire and Maine being much appreciated. The G.T.R. was represented by H. G. Elliot, A.G.P.A., and J. Quinlan, D.P.A., Montreal; J. J. Conelly, Trainmaster, Island Pond, Vt., who was in direct charge of the train, and G. C. Cobb, Road Foreman of Engines. At Groveton, N.H., the party were met by R. W. Scott, C. W. T. Goding, H. A. Snow and H. B. Coe of the Portland reception committee, and by one of the clerks of the New Falmouth hotel, the party's headquarters. At Mechanic Falls the train was boarded by British Vice-Consul J. B. Keating. On the arrival of the train at Portland the party were met by other members of the local committee, and immediately escorted to special electric cars and taken to the hotel, where they were roomed in a few minutes owing to the excellent advance arrangements. The hotel clerk who got on the special train at Groveton had with him cards bearing the names and room numbers of those who had secured accommodation in advance, for the others he allotted rooms, and when the hotel was reached there was no delay, the guests not even requiring to register but going direct to their rooms. This systematic arrangement was typical of the whole experience of the party at the New Falmouth. The rooms were very comfortable, the meals excellent and the entire staff unremitting in polite attention. The opinion very generally expressed was that the hotel accommodation was about the most satisfactory ever secured by the Association, and in marked contrast to the Ebbitt House, at Washington, which will ever remain as an unpleasant recollection to most of those who stayed there in 1902. The visitors were much pleased by seeing a British flag displayed alongside the Stars and Stripes on the G.T.R. station at Portland, and also on the New Falmouth Hotel. In addition to the courtesy extended by the Portland Rd. Co., the Chase Transfer Co. conveyed the party's baggage to and from the hotel free.

On the Saturday evening a majority of the party attended either the Jefferson or Portland theatre. Sunday was spent quietly, many attending church services, the larger number going in the morning to St. Stephen's Episcopal Church, on the invitation of F. E. Boothby, G.P.A. Maine Central Rd.

On Monday, Oct. 16, the party proceeded to the Council Chamber of Portland City Hall at 9.30 a.m., where they were introduced by R. W. Scott to Mayor Baxter, who officially welcomed them on behalf of the city. C. F. Libby and British Vice-Consul Keating also extended welcomes, W. H. C. Mackay responding on behalf of the Association.

THE NINETEENTH ANNUAL MEETING

was held at the New Falmouth Hotel at 10.30 a.m., Vice-President W. H. C. Mackay in the chair. After routine Secretary-Treasurer de la Hooke read his annual report, pointing out that 1904 was the banner year for membership, when the record number of 199 was reached, no doubt in some measure attributable to the popularity of the St. Louis trip. During the past year 18 new members had been enrolled, but 34 had retired, either by non-payment of subscriptions or from other causes, making the present membership 183. "Surely," said the Secretary, "S2 a year should not keep an agent, once a member, from continuing as such, even if it is not convenient for him to join in every outing. Every member gets monthly a copy of THE RAILWAY AND SHIPPING WORLD, and as this up-to-date journal is published at \$1 a year, a member's subscription to the Association is but \$1 a year." Feeling references were made to the deaths of A. H. Notman, of the C.P.R.; C. Cameron, of Collingwood; A. P. Cockburn, of the Muskoka Lakes Navigation and Hotel Co., and Senator Fulford, of Brockville, who was one of the oldest members of the Association. The receipts, including balance brought forward, were \$646.20, and the expenses \$441.67, leaving a balance of \$204.53.

M. McNamara gave an interesting and humorous account of the meeting of the American Association of General Passenger Agents at Old Point Comfort, Va., in Oct., 1904. In reference to the business aspects of the meeting he said: "I did my best to convince the Association that Canadian ticket agents should be paid for selling tickets over their lines. They listened to my arguments with attention, but failed to show any sympathetic interest in our grievances. It is possible that business conditions may hereafter arise which will make it to the interest of the United States companies to pay us for the services we render them, but present indications in that direction are by no means hopeful." Mr. McNamara's report was very favorably received, and he was accorded a hearty vote of thanks for the excellent manner in which he had represented the Association.

Vice-President Mackay expressed the regret of the members at the unavoidable absence of President Morgan. In reviewing the Association's work he suggested the introduction of more business features at the annual meetings by reading of papers, etc. The suggestion having been discussed, the executive committee was requested to carry it into effect.

A resolution was adopted expressing regret at the death of Senator Fulford, and the Secretary immediately telegraphed it to the widow at Boston.

The election of officers resulted as follows: President, W. Buntin, G.T.R., Peterboro', Ont.; 1st Vice-President, W. McIlroy, C.P.R., Peterboro'; 2nd Vice-President, C. R. Coleman, C.P.R., Truro, N.S.; 3rd Vice-President, R. J. Craig, C.P.R., Cobourg, Ont.; Secretary-Treasurer, E. de la Hooke, G.T.R., London, Ont.; Auditor, F. R. Hodgins, G.T.R., Clinton, Ont.; Executive Committee, W. Jackson, C.P.R., Clinton, Ont.; J. P. Hanley, G.T.R., Kingston, Ont.; C. E. Horning, G.T.R., Toronto; J. F. Dolan, R. & O. N. Co., Montreal; W. Maughan, C.P.R., Toronto. At a subsequent meeting of the Executive Committee W. Jackson was elected chairman.

The home of the poet Longfellow in Portland was specially opened to allow the party to visit it.

THE ANNUAL DINNER

was held at the New Falmouth Hotel on Monday evening, Oct. 16. Vice-President Mackay occupied the chair, and had with him at his table a number of prominent



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Winnipeg and Port Arthur

Leave Winnipeg 4
p.m. Arrive Port
Arthur, 8.30 a.m.

DAILY

Leave Port Arthur,
6.50 p.m. Arrive
Winnipeg, 11.30 a.m.

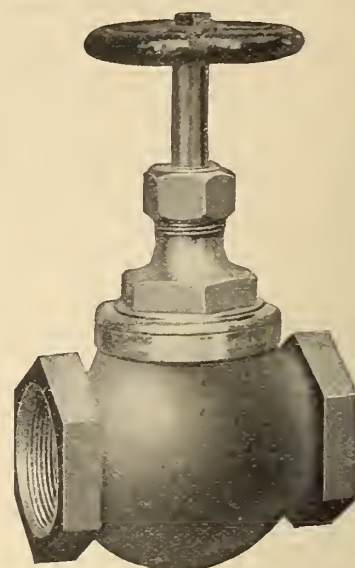
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A MAGNIFICENT NEW TRAIN—COMFORTABLE,
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EXCELLENT DINING CAR SERVICE**

CONNECTIONS AT PORT ARTHUR with steamers of the Northern Navigation Co., Canadian Pacific Steamship Line, Booth Line, and Canadian Pacific Railway TO AND FROM ALL POINTS IN THE EAST.

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are superior to any other disc
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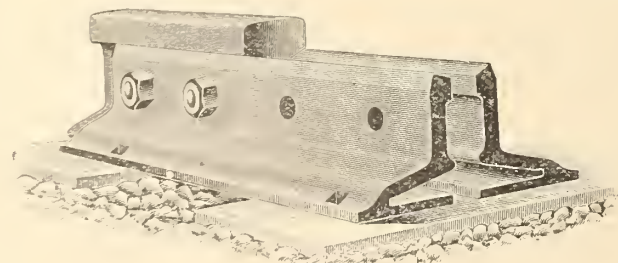
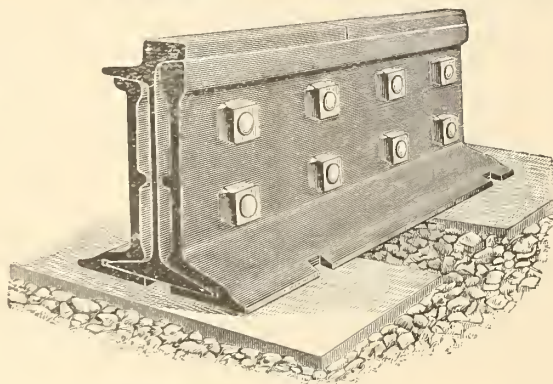
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The day has passed when men of finance are willing to place their money into bad material in railroad construction only to be compelled to replace it by renewals or reconstruction after very little use. Many of the best and most successful steam and electric railroads use the rail joints of the Continuous patent type for standard track work, insulated joints, step joints, and electric bonding joints for the reason that experience has proven it to be the best appliance of its kind ever put upon the market, as evidenced by the fact that it is used in all parts of the world on over 20,000 miles of track.

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IMPROVED FARMS in all districts of the province can be purchased at from \$10 to \$40 per acre. These prices are advancing every year.

A FEW POINTERS

On arrival at Winnipeg the wisest policy for any new settler to adopt is to remain in Winnipeg for a few days and learn for himself all about the lands offered for sale and to homestead.

There are districts that have been settled for many years in which land can be purchased. Some of this may be unbroken prairie which still possesses all the richness and productive powers of our virgin prairies. Other lands, cultivated and having comfortable farm buildings, are ready for immediate possession.

There are Provincial Government lands, Dominion Government homesteads, and railway lands to be secured.

The price of land varies from \$3 to \$40 per acre. Location with respect to railways, towns, timber and water determines the price of land.

For information regarding homesteads, apply at the Dominion Land Office.

For purchase of Provincial lands apply at the Provincial Land Office in the Parliament Buildings.

For C.P.R. or C.N.R. lands apply at the land offices of said railway companies.

For lands owned by private individuals apply to the various real estate agents in the city.

For situations as farm laborers apply to :

J. J. GOLDEN,

PROVINCIAL INFORMATION BUREAU

617 MAIN ST., WINNIPEG

Portland citizens. The rest of the party and guests were seated at small tables throughout the room. The health of the President of the U.S., proposed by Mr. Mackay, was responded to by Col. W. M. Black, of the U.S. engineer corps. British Vice-Consul Keating responded to the toast of the King, both speeches being eloquent efforts. The city of Portland was responded to by Alderman Carr. C. W. T. Goding, G. M. Casco Bay Steamboat Co., M. H. Bohreer, D.P.A. Mobile and Ohio Rd., and A. Lalonde, C.P. and F.A. Boston and Maine Rd., spoke on behalf of the transportation interests. Mr. Bohreer extended an invitation to the Association to go over the Mobile and Ohio Rd. next year from St. Louis to Mobile, 646 miles and thence by the Munson Steamship Line to Havana, Cuba. Mr. Lalonde spoke first in French to the amusement of his hearers. "The Travelling Passenger Agents" was responded to by A. C. Turpin, G.A.C.D., Chicago, Rock Island and Pacific Ry.; J. A. Yorick, C.P. & F.A., Chicago, Burlington and Quincy Ry., and J. A. Goodsell, T.P.A. Union Pacific Rd. In response to the toast of "Our Guests," C. F. Libby made the speech of the evening. He said: "I am glad to participate in this international gathering, and as a citizen of Portland to welcome you to the natural seaport of Canada. We cannot change geography, although we may erect artificial barriers to trade and commerce. Portland must remain what nature intended her to be—the best harbor on the Atlantic coast and the best winter port of Canada."

After referring to the common interests of Canada and the U.S., and to the glorious history of English-speaking peoples, he said: "We need your raw material and you need our manufactured products. If the course of trade were allowed to follow natural conditions each would furnish the other its best market. For one, I hope to live to see the time when the artificial obstructions to commerce between the two countries shall be thrown down and the freedom of trade which existed under the reciprocity treaty of half a century ago shall be ushered in. This must be the wish of every one of our citizens who has at heart the growth and prosperity of Portland. For it should not be forgotten that the growth and importance of Portland is due more to its international trade and its international connections than to any other cause. And in this connection the part that Portland and its citizens have played in the inception of your great Grand Trunk Ry. system should not be ignored. To their enterprise and courage is due the first international railway on this continent, which connects the cities of Portland and Montreal, and which as soon as built became an important part of the G.T.R. system, and I am reminded how fleeting and evanescent is human fame, when I reflect that the name of the one man, to whose foresight, enthusiasm and indomitable energy the construction of the Atlantic and St. Lawrence Rd. was due in a larger measure than to any other of our citizens, is hardly known to this generation. In fact I doubt if there are a dozen men in this audience to whom the name of John A. Poor is familiar, yet on such an occasion as this we may well honor his memory, for he devoted the energies of his resourceful life to promoting closer commercial relations between Maine and Canada, with a breadth of purpose and clearness of vision which we of this generation will do well to imitate. Before he died in 1871 he had seen two of his projects realized—the completion of the Atlantic and St. Lawrence Rd., by which Portland became the Atlantic terminus of the G.T.R. system, and the practical completion of the European and North American Rd., which connected Maine with the Maritime Provinces of Canada. What the G.T.R.

has done for Canada I need not rehearse—you all know it—but what it has done for Portland, we, who live here, know and appreciate, and I feel I am not using the language of exaggeration when I say that the G.T.R. has done more to promote the commercial importance of Portland than all other railroads combined. Without it we should be a side station of the Boston and Maine system—without it we should have no transatlantic steamships plying between this port and Europe throughout the year, and instead of being the terminus of an important international railroad system, we would have lapsed into a port of minor importance."

Other toasts were the Press, responded to by Mr. Littlefield, and the Ladies, responded to by W. Jackson. W. McLroy, of Peterboro, sang some excellent songs. The dinner was well served and passed off very successfully. The toasts were, of course, drunk in cold water, in deference to the Maine prohibitory law. The evening closed with the singing of Auld Lang Syne.

During the dinner the ladies of the party were entertained in the hotel drawing-rooms by a committee of Portland ladies.

On Tuesday, Oct. 17, the party left the hotel at 9.30 a.m. by special electric cars for the Casco Bay Steamboat Co.'s wharf, accompanied by a band. They boarded the steamer Merryconeag, which was specially reserved for them, and on which they sailed till a little after noon among the islands of Casco Bay. Shortly before one o'clock they went ashore at Ponce's Landing, Long Island, and proceeded to Cushing's, where a monster shore dinner and clam bake had been provided for them. The New Falmouth was reached again at about 4 p.m. after a most delightful outing. Undoubtedly the Casco Bay sail and the clam bake were the star features of the whole trip. C. W. T. Goding, General Manager of the Casco Bay Steamboat Co., who extended the invitation, was unremitting in his attentions, and was assisted by the Portland local committee. A number of other Portland people, including several ladies, also took part in the trip.

In the evening an informal social and musical was held at the Falmouth Hotel, the principal feature being several vaudeville acts from the Portland theatre. Buffet refreshments were served with the compliments of the hotel proprietor, F. H. Nunns.

On Wednesday, Oct. 18, the Portland Rd. Co. took the party in the morning by special electric cars around the city to Fort Allen, Underwood, Cape Cottage and Riverton parks, and in the afternoon through the country to Biddeford, and thence to Old Orchard Beach.

Portland was left on Thursday, Oct. 19, at 8 a.m., by special train over the Maine Central, Boston and Maine for Montreal, which was reached at 5.15 p.m., where the party disbanded. The scenery en route, especially through the White Mountains, was enthusiastically admired. Stops were made at Crawford's for a view of the Crawford Notch, and at Bretton Woods for the Presidential Range. A number of the Portland committee accompanied the party during the morning. Luncheon was taken on the train. A. E. Lalonde, C.P. & F.A., Boston & Maine Rd., took charge of the party during that portion of the trip.

The reception and entertainment committee of Portland citizens was composed as follows: Chairman, R. W. Scott, Agent, Grand Trunk Railway; Secretary, J. R. Bowles, Grand Trunk Railway; F. E. Boothby, G.P. & T.A., Maine Central Rd.; R. C. Bradford, T.M., Portland and Rumford Falls Ry.; H. A. Clay, Agent, Maine Steamship Co.; Harrie B. Coe, C.C., Maine Central Rd.; C. W. T. Goding, G.M., Casco Bay Steam-

boat Co.; W. E. Holden, Agent, Eastern Steamship Co.; E. L. Jordan, Mangr., Harpswell Steamboat Co.; J. W. Kilborn, T.P.A., Maine Central Rd.; John Lawlor, T.A., Grand Trunk Railway; J. F. Liscomb, Agent, Eastern Steamship Co.; Chas. R. Lewis, Agent, Eastern Steamboat Co.; A. P. Massey, T.P.A., Boston and Maine Rd.; C. F. Porter, U.S. Marine Engineers; H. A. Snow, T.A., Union Station; H. D. Waldron, A.P.A., Maine Central Rd.; Geo. F. West, President, Harpswell Steamboat Co.; Dr. W. A. Wheeler, Director, Portland Railroad Co. The chairman, R. W. Scott, a Canadian, and formerly in the G.T.R. service at London and Suspension Bridge, Ont., worked very hard, and those who took part in the trip will long remember his very successful efforts, which were well seconded by other members of the committee.

As usual, Secretary de la Hooke had made most complete arrangements for the outing, everything having been most carefully thought out. The amount of detail work involved is hard to realize.

The following presentations were made on behalf of the party during the trip:—H. G. Elliot, A.G.P.A., Grand Trunk Ry., silver-mounted carving set with silver holder; J. Quinlan, D.P.A., Grand Trunk Ry., set of pearl-handled fruit knives; C. B. Foster, D.P.A., Canadian Pacific Ry., gold tie pin; A. Lalonde, C.P. & F.A., Boston and Maine Rd., French travelling clock; R. W. Scott, Agent, G.T.R. Portland, and chairman of the Portland Reception Committee, cut glass vase; C. W. T. Goding, G.M., Casco Bay Steamboat Co., cut glass vase; H. B. Coe, C.C. Passenger Department, Maine Central Rd., case of pipes; H. B. Snow, ticket agent, Union Station, Portland, silk umbrella; J. Lawlor, ticket agent G.T.R., Portland, carving set; J. R. Bowles, G.T.R., Portland, Secretary of the Local Committee, gold tie pin.

Members who shied at the idea of going to Portland missed a great treat. The outing was a thorough success and most enjoyable throughout.

Freight Rates on Wire Screen Doors.

The Interstate Commerce Commission has had before it the case of the A. J. Phillips Co., of Fenton, Mich., against the Grand Trunk Western Ry. and others respecting the freight rates on wire screen windows and doors. The complaint alleged that the rates on wire screen doors and windows in carloads from Fenton, Mich., to Philadelphia, New York and Boston, and also to Winooski, Vt., were unreasonable and unjustly higher than the rates on the same traffic from Winooski, Vt., to Detroit, Chicago, Milwaukee and St. Louis. The complainant states, for example, that the rate from Fenton, Mich., to Winooski, Vt., is 36c. per 100 lbs., minimum carload weight 14,000 lbs., while the rate from Winooski to Detroit, about 50 miles from Fenton, is 20c. per 100 lbs., minimum carload weight 18,000 lbs. Complainant states that its competitor at Winooski is under these rates enabled to get into Detroit territory at a rate 16c. per 100 lbs. cheaper than complainant can get into Boston territory, and that such difference amounts to 40c. per dozen on screen doors; and that similar, though less, discrimination exists against complainant on shipments to intermediate destinations.

The American Association of Travelling Passenger Agents met at Portland, Ore., for their 33rd annual convention, Sept. 20, and after transacting their business, travelled to Vancouver by steamer, thence over the C.P.R. to Emerson, Man., and thence over the Minneapolis, St. Paul and Sault Ste. Marie Ry. and the Chicago and Northwestern Rd. to Chicago.

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The Renowned Sterling Brands of Locomotive, Cylinder, Engine,
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Purposes is equalled by few and excelled by none.

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Canadian Northern Ry. Construction.

Track was expected to be laid to Fort Saskatchewan, Alta., by the end of Oct., and into Edmonton early in Nov. The bridge at Fort Saskatchewan was expected to be ready by the end of Oct., and about a week's work on tracklaying would take the rails into the town. The bridge, however, is only a temporary one, the permanent bridge not being expected to be completed until the spring. It will be a double-decked bridge, the lower deck being used for general traffic and the upper deck for trains. The contractors for the substructure, May, Sharpe & Co., will build three concrete piers each about 60 ft. in height, and two abutments. The steel superstructure will be placed by the company's bridge gang. The work is to be completed in Mar., 1906. Rapid progress has been made on the roundhouse and station at Edmonton, and it is expected to have them completed by the end of the year.

A branch is under construction to Morinville, Alta., and it is expected to get 25 miles of grading westerly through Stony Plains done this season.

At a point about six miles of Battleford, on the line to Edmonton, the company is constructing a large bridge to replace the temporary structure now used. It is expected that the bridge will be completed by Jan. 1, 1906.

W. Mackenzie, President, has completed a trip of inspection over the line, driving into Edmonton, Oct. 6, over the 60 miles of grade then practically ready for the rails.

National Transcontinental Railway.

The Transcontinental Railway Commissioners left Ottawa, Sept. 29, on a trip to the Maritime Provinces. From Quebec they travelled to Riviere du Loup, thence via the Temiscouata Ry. to Edmundston, N.B., and on by the C.P.R. to Grand Falls. From this point they went to Plaster Rock, via the Tobique Valley Ry., and then along a portion of the projected route of the Eastern Division to Fredericton. St. John was the next point visited. Messrs. Young and Reid went to Chipman, where the Central and the St. John Valley routes meet, and Messrs. Parent and McIsaac joined them later on. A visit was also paid to Halifax and Sydney, and later on a trip was made to Prince Edward Island, where they went over the railway, leaving Charlottetown for Ottawa, Oct. 9.

The offices of G. C. Dunn, Division Engineer, will be moved Nov. 1, from Fredericton to St. John, N.B.

Work has been commenced on an extension of the Niagara, St. Catharines and Toronto Ry. from Falls View to Montrose, Ont. It is stated that this extension will be the connecting link between the N., St. C. and T. Ry., and the projected Toronto and Hamilton Ry. The company has also started work upon the improvement of the line in the vicinity of Merriton. Several of the trestles there will be filled, and others are to be replaced by steel bridges. (Sept. pg. 427.)

The sittings of the Board of Railway Commissioners in the West have been concluded, and A. C. Killam, K.C., Chairman, and Jas. Mills, Commissioner, have returned to Ottawa. The orders of the Commissioners upon the matters brought before them will be decided upon and issued in due course. On arriving at the Pacific coast the Commissioners held sittings at New Westminster and Vancouver, and returned east via the Crow's Nest Pass line, holding a session at Nelson, B.C., Sept. 27; and another at Regina, Oct. 5. The sittings at Winnipeg were resumed Oct. 10, and occupied some time.

MAINLY ABOUT PEOPLE.

C. M. Gartshore, third son of J. J. Gartshore, died at Eglinton, Toronto, Oct. 3.

D. McNicoll, Vice-President C.P.R., is building a large residence in Westmount, Montreal.

D. D. Mann is preparing to erect a residence at Scarboro Heights, Toronto, to cost about \$150,000.

S. G. Sheppard, for many years a director of the Quebec Central Ry., died in London, Eng., Oct. 9.

F. W. Churchill, C.P.R. ticket agent, Collingwood, Ont., returned from a trip to the Pacific coast, Oct. 3.

R. G. Reid, President Reid-Newfoundland Co., who spent the summer in Europe, has returned to Montreal.

W. V. Morgan, who will be installed Lord Mayor of London, Eng., Nov. 9, is a director of the Hudson's Bay Co.

R. Miller, C.P.R. agent, Windsor St. Station, Montreal, returned to duty Oct. 20, after a holiday in New Brunswick.

E. J. Odum, C.E., for nearly 30 years in charge of the Welland Canal, died at St. Catharines, Ont., Sept. 26, aged 58.

R. Bourne, civil engineer, and at one time Professor of Mathematics at St. John's College, Winnipeg, Man., died there Sept. 26.

P. Sise, son of C. F. Sise, President Bell Telephone Co., was married to Miss P. Porteous, at St. Petronille, Que., Sept. 27.

H. K. Wicksteed, consulting engineer to Mackenzie, Mann & Co., has removed his offices from Parry Sound, Ont., to Toronto.

L. C. Charlesworth, formerly with the Ontario Bureau of Mines, has been appointed Director of Surveys for the new Province of Alberta.

A. Piers, Manager C.P.R. Steamship lines, Montreal, sailed for England on the Lake Manitoba, Oct. 19, and expects to return about Dec. 3.

Angus Sinclair, contractor James Bay Ry. construction, has rented Mr. Justice MacMahon's house, 185 Beverley St., Toronto, for the winter.

W. A. Gourlay, engineer in charge of location, Ingersoll-Stratford branch C.P.R., was married at Lindsay, Ont., Oct. 18, to Miss T. E. Macdonald.

The Marchioness of Donegal arrived in Montreal Oct. 8, and paid a visit to A. R. Creelman, K.C., chief solicitor to the C.P.R., before going west.

Sir Wm. C. Van Horne, Chairman of the Board, C.P.R., has been elected a member of the re-organized board of the Equitable Life Assurance Society, New York.

Barlow Cumberland, Port Hope, Ont., Vice-President Niagara Navigation Co., has been elected a director of the London and Canadian Loan and Agency Co.

A. H. Wittmaak, C.P.R. Ticket Agent, Hespeler, Ont., has returned home after having been operated upon for appendicitis at St. Joseph's Hospital, Guelph.

A. T. Tomlinson, member American Society of Civil Engineers, has been transferred from J. G. White & Co.'s New York office to the Canadian White Co.'s office in Montreal.

Jas. Slater, for several years C.P.R. ticket agent at Vancouver, B.C., and latterly in the Assistant General Passenger Agent's office, there, has retired from the company's service.

A. Elliott, formerly connected with the Harris Car Works, St. John, N.B., and latterly foreman of the erecting shops at Amherst, N.S., for Rhodes, Curry & Co., died there Oct. 6, aged 70.

The engagement is announced of E. F. Fauquier, railway contractor, Ottawa, to Miss Ethel White, eldest daughter of Col. F. White, C.M.G., Comptroller Northwest Mounted Police.

The marriage of Miss M. Cumberland, daughter of Barlow Cumberland, Vice-President Niagara Navigation Co., to H. Wether- spoon, of Montreal, is fixed to take place at Port Hope, Ont., Nov. 1.

H. D. Lumsden, Chief Engineer, Transcontinental Ry. Commission, has bought a house in Ottawa. Mrs. Lumsden, who spent the summer at their house at Orillia, Ont., with her family, has returned to Ottawa.

W. E. Boyd, who died at Montreal, Oct. 9, aged 71, was the last Canadian member of the Average Adjusters' Association of Great Britain. He was connected with shipping interests in Montreal for about 50 years.

Hugh Calderwood, ex-Manager of the Collingwood Shipbuilding Co., and Mrs. Calderwood, have removed from Collingwood to Toronto, and taken up their residence in Mrs. Calderwood's former home, 18 Madison Ave.

S. N. Parent, Chairman National Transcontinental Railway Commission, was given a public dinner Oct. 19, by the citizens of Quebec, on retiring from municipal life in Quebec city, and political life in the Province.

G. H. Ham, of the C.P.R. head office staff, sailed from Montreal on the Lake Champlain, Sept. 28, for a trip to England and is expected to return to Montreal early in Nov. He is reported to have greatly benefited by his trip.

J. Currie, formerly in charge of the Canada Atlantic Ry. blacksmith shop, Ottawa, was presented with an address and a watch, by the employees, and an ivory rule by the heads of other departments, on his leaving the service, Oct. 1.

W. W. Price, for 45 years station master on the I.C.R. at Petitcodiac, N.B., died there Oct. 10, aged 77. He was father of the late J. E. Price, General Superintendent I.C.R., and of C. W. Price, Train Dispatcher, I.C.R., at Moncton, N.B.

J. W. Smith, formerly General Assistant and Purchasing Agent Canada Atlantic Ry., has been appointed Manager of the Colonial Lumber Co., Ottawa, of which E. J. Chamberlin, formerly General Manager Canada Atlantic Ry., is President.

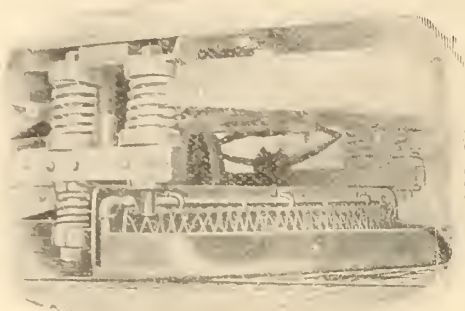
D. Steele, Roadmaster, Reid-Newfoundland Co.'s railway, was recently making an inspection trip on a motor car, when he collided with a section hand-car, and received serious injuries. The section men were able to jump clear of their car before the collision.

The engagement is announced of H. Carre, C.E., late of the C.P.R. field engineering staff, to Mrs. Jas. Reid, of Vancouver, B.C., widow of the late Senator Reid, of Quesnelle, B.C. The marriage will take place in Nov., at Vancouver, where Mr. Carre will reside in future.

E. H. McHenry, formerly Chief Engineer C.P.R., and now Fourth Vice President New York, New Haven and Hartford Rd., has been given charge of the construction and maintenance of way departments, in addition to his former duties in connection with the electrification of the line.

A committee representing the Summer Resort Keepers' Association, has been formed to arrange for a memorial to the late A. P. Cockburn, Manager of the Muskoka Lakes Navigation and Hotel Co., who was largely instrumental in opening up the Muskoka country to tourist travel.

W. F. Taylor, who has been appointed General Storekeeper I.C.R., was born at Hillsboro, N.B., Aug. 20, 1856, and had been in the employ of a local manufactory from Aug., 1877, to Mar., 1904. He was appointed



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A general Banking business transacted.

to his present position Sept. 26, having been eighteen months out of business.

Stanton A. Baker, Canadian Freight and Passenger Agent, Chicago Great Western Ry., Toronto, was married Oct. 17, to Miss F. E. Montgomery, of Morrisburg, Ont. They are now on a trip through the Maritime Provinces, and will take up their residence at 77 Carlton St., Toronto, about the end of Nov.

H. B. Mussen, for the past ten years with the Canada Atlantic Ry., has resigned his position as city agent at Montreal, owing to the transfer of the line to the G.T.R., and has gone into partnership with W. T. Stewart, insurance broker, 171 St. James St., Montreal, under the firm name of Stewart & Mussen.

W. J. Crossen, General Manager Crossen Car Manufacturing Co., Cobourg, Ont., was sufficiently recovered from the effects of his recent operation for appendicitis to allow of his going to Atlantic City, N.J., in the middle of Oct., where he will remain under the care of his physician, Dr. Douglas, until fully recovered.

J. T. Meany, agent at Sydney, N.S., for the Reid-Newfoundland Co., was arrested some time ago, charged with being short in his accounts, but was acquitted. A jury has now awarded him \$1,200 damages for alleged wrongful and illegal dismissal. The Reid-Newfoundland Co. will, it is understood, appeal against this decision.

A. J. Gorrie, General Superintendent Great Northern Ry. of Canada, was presented with a cabinet of cutlery by the officials and staff on the occasion of his marriage to Miss A. Yates, of Kingston, Ont., at Quebec, Oct. 7. The bride was given away by her cousin, A. G. Yates, President of the Buffalo, Rochester and Pittsburg Rd., Rochester, N.Y.

A conservatory attachment for \$25,000 has been issued on behalf of A. R. Macdonell, contractor for the Temiskaming and Northern Ontario Ry. against D. Russell, Montreal, and the Caledonia Springs Co. (Ltd.), to seize \$100,000 now in the hands of the C.P.R., and to hold it until Mr. Macdonell's suit against Mr. Russell is decided in the Superior Court.

G. L. Nelson, who has been appointed Division Freight Agent G.T.R. at Portland, Me., was born at Cape Elizabeth, Me., June 28, 1862, and entered railway service Nov., 1879, since which his record has been: Nov., 1879, to Aug., 1890, G.T.R. at Portland, Me.; Aug., 1890, to Mar., 1893, in General Freight Agent's office Maine Central Rd., Portland, Me.; Mar., 1893, to April, 1902, Agent Great Eastern Line, Portland, Me.; April, 1902, to Oct. 1, 1905, agent of the consolidated National Despatch and Great Eastern Lines, Portland, Me.

Jas. Wilson, Claims Agent, Ontario Division C.P.R., died suddenly in his office at the Union Station, Toronto, Oct. 2, aged 72. Born in Edinburgh in 1833, he came to Canada as a youth, and entered railway service about 1850, on the old Welland Ry., on which he was for a time Superintendent of Telegraphs. After some time with the G.T.R. he became Superintendent of the old Toronto, Grey and Bruce Ry., remaining with the C.P.R. when it absorbed the T., G. and B. He was Superintendent of the C.P.R. Ontario and Quebec Division for some time, and afterwards Claims Agent.

W. F. Wagner, General Manager of Wm. Jessop & Sons, Ltd., in the United States, together with E. L. Hand, who represents them in Philadelphia; E. W. Salisbury, of Warren, Salisbury & Nightingale, their agents in Providence; E. B. Ridgley, their representative in Detroit, together with F. W. Babcock, of the Standard Oil Co., a resident of Providence, sailed on the Cunard steamer Caronia, Oct. 3, to attend the 282nd annual gathering of the Cutlers Co. at their

banquet in Sheffield, on Oct. 12, when S. Jessop Robinson, Managing Director of Wm. Jessop & Sons, Ltd., was installed as Master Cutler.

W. Wood, who has been appointed C.P.R. locomotive foreman at Megantic, Que., was born in Montreal, Dec. 6, 1863, and entered railway service 1881, since which his record has been: 1881 to Dec., 1884, apprentice to C.P.R. Delorimier Ave. shops; Jan., 1885, to Oct., 1890, fitter Louisville and Nashville Rd., Mobile, Ala.; Oct., 1890, to 1893, fitter, Peoria, Decatur and Evansville Rd., Mattoon, Ill.; 1893 to 1895, fitter Canada Switch Works, Montreal; 1895 to 1900, with the Canada Ry. Accident Insurance Co., for railway work; Feb., 1900, to Sept. 30, 1905, leading hand C.P.R. shops, Outremont, Que.

F. Ronaldson, who has been appointed acting locomotive foreman C.P.R. at Brownville Jct., Me., was born at Prescott, Ont., June 4, 1869. He served his apprenticeship in the G.T.R. shops at Point St. Charles, Montreal, and entered the service of the C.P.R. April 14, 1890, since which his record has been: 1890 to 1896, machinist, C.P.R. North Bay, Ont.; 1896 to 1902, leading hand C.P.R. North Bay; 1902 to 1903, locomotive foreman C.P.R., Schrieber, Ont.; Feb., 1903, to Sept., 1904, general locomotive foreman C.P.R., North Bay; Sept., 1904, to Sept., 1905, locomotive foreman C.P.R., Megantic, Que.

E. R. McNeill, Division Engineer G.T. Pacific Ry., who died of typhoid fever at Winnipeg, Man., Oct. 7, was born near Garden Grove, Ia., July 25, 1866, and entered railway service June, 1887. After having some service with the Rock Island Rd., and the Missouri River Commission, he entered the service of the Northern Pacific Rd., and was in charge of the masonry lining of the Wicks tunnel until 1894. Until 1899 he engaged in private practice, and was in charge of construction on the Montana Central Ry. from 1899 to 1901; going to the Great Northern Ry. as Resident Engineer in charge of maintenance and construction Middle Division, remaining there until he joined the G.T. Pacific Ry. staff in Sept., 1903, as District Engineer at Edmonton, Alta. A temporary cessation of the work in Aug., 1904, caused him to move to Vancouver, B.C., as Chief Engineer of the Vancouver, Westminster and Yukon Ry., but he returned to Edmonton in April, 1905, and was moved to Winnipeg as Division Engineer July 1.

E. R. Bremner, who has been appointed Division Freight Agent, G.T.R., Ottawa, was born in Toronto, Sept. 29, 1875. He entered the G.T.R. service at Toronto, Oct. 10, 1890, in the office of A. White, District Freight Agent, as junior, and was connected with that Co. until Nov. 1, 1893, when he entered the Ontario agency of the Canada Atlantic and National Despatch fast freight lines, being connected with these lines until May, 1895, when the agency was abolished. He re-entered the service of the G.T.R. as clerk in the Division Freight Agent's office at Toronto, and was Assistant City Freight Agent, until Aug., 1895, when he entered the service of the Canada Atlantic Ry. at Ottawa, as secretary to C. J. Smith, General Traffic Manager, holding the position of secretary and rate clerk until the re-organization of the C.A.R. in May, 1898, and the opening of the Canada Atlantic Transit Co., when he was appointed chief clerk of the Traffic Department, which position he held until July 1, 1901, when appointed Assistant General Freight Agent, remaining in that office until the C.A. Ry. was taken over by the G.T.R., Oct. 1.

F. H. Alfred, who was been appointed General Manager of the Canadian White Co., at

Montreal, was born Dec. 24, 1866, and received his education at the University of Michigan and the Ohio State University. From 1887 to 1890 he was engaged on railway construction as rodman, transitman and resident engineer, and from the latter date to 1894 was with the Norfolk & Western Rd., during which time he had charge of the field work on the construction of the terminals at Columbus, O. In 1894 he entered the service of the Hocking Valley Rd. and was connected with its engineering department for two years. From 1896 to 1899 he was engineer maintenance of way of the Cleveland, Akron & Columbus Rd., and was then for one year engineer maintenance of way of the Wheeling & Lake Erie Rd. He became connected with the Pere Marquette Rd. in 1900 as division engineer and has been Chief Engineer since 1902. During this time the railway was re-organized and extended into Chicago and Buffalo, new yards and shops were built at Grand Rapids, Mich., and the new shops at St. Thomas, Ont., have recently been completed under Mr. Alfred's supervision.

Jas. W. Leonard, who has been appointed Assistant General Manager, C.P.R. Eastern Lines, Montreal, was born at Epsom, Ont., 1858. He entered railway service, 1872, since which his record has been: 1872 to Aug., 1877, telegraph operator and agent, Midland Ry. of Canada; Aug., 1877, to Dec., 1878, agent Victoria Ry.; Dec., 1878, to Mar., 1880, assistant manager same road; Mar. to June, 1880, assistant to General Superintendent Credit Valley Ry.; June, 1880, to Nov., 1883, General Passenger Agent, same road; Nov., 1883, to May, 1884, Master of Transportation Ontario and Quebec Ry.; May, 1884, to Mar., 1887, Superintendent C.P.R. at Toronto; Mar., 1887, to Mar., 1890, Superintendent at Kamloops; Mar., 1890, to Mar., 1893, Superintendent lines east of Montreal, same road; Mar., 1893, to April, 1901, General Superintendent Ontario and Quebec division, same road, Toronto; April, 1901, to Mar., 1903, General Superintendent, Western Division, same road, Winnipeg; Mar., to April, 1903, General Superintendent, Central Division, same road, Winnipeg; April, 1903, to Jan., 1904, Assistant Manager, C.P.R. lines west of Lake Superior, Winnipeg. After some months spent in travelling, Mr. Leonard was elected President Guelph and Goderich Ry., and subsequently Manager of Construction, C.P.R. lines in Ontario, which position he retains in connection with his present appointment.

The Canadian Fairbanks Co. advises that it is now at work on the first section of its new general supply catalogue, which will be devoted to pipe and steam fitters' tools, and will be ready in Dec.

The officials of the traffic departments of the C.P.R., the G.T.R., the I.C.R., and the Rutland Rd., at Montreal, were invited to spend a day at Abenakis, Que., by the Quebec Southern Ry., Oct. 3.

W. P. Hinton, General Agent Passenger Department G.T.R., and E. R. Bremner, Division Freight Agent, formerly of the Canada Atlantic services, are continuing to occupy offices in the Central Chambers, Ottawa, as heretofore.

At the annual meeting of the American Locomotive Co., in New York, Oct. 17, Dr. W. Seward Webb and G. Hoadley retired from the Board, and C. A. Coffin, President of the General Electric Co., and E. C. Converse, a director of the United States Steel Corporation, were elected directors in their stead. The other directors were re-elected, the full Board being as follows:—W. M. Barum, J. Bryan, C. A. Coffin, E. C. Converse, P. Fisk, J. E. French, C. Miller, A. J. Pitkin, S. L. Schoonmaker, G. R. Sheldon, F. H. Stevens.

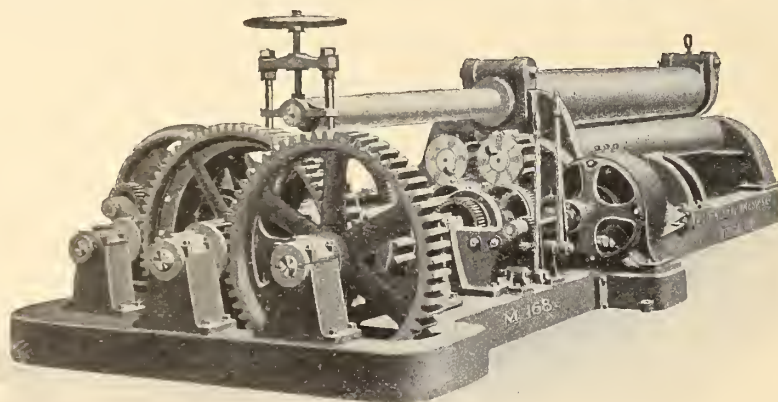
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MONTREAL, CANADA

TRANSPORTATION APPOINTMENTS.

Algoma Central and Hudson Bay Ry.—R. W. Seelye has been appointed Superintendent of the Michipicoten branch, vice C. Shields, resigned.

Canadian Pacific Ry.—J. W. Leonard, heretofore Manager of Construction new lines in Ontario, has been appointed Assistant General Manager of Eastern Lines. Office at Montreal. He will have charge of operation and maintenance of all the company's eastern lines, and of the construction of new lines in Ontario.

F. Ronaldson, heretofore locomotive foreman at Megantic, Que., has been appointed acting locomotive foreman at Brownville Jct., Me.

W. Woods, heretofore leading hand at Outremont, Que., has been appointed locomotive foreman at Megantic, Que., succeeding F. Ronaldson, transferred.

D. J. MacDonnell, heretofore Asst. Roadmaster at Peterboro', Ont., has been appointed Roadmaster from Leaside Jct. to Have-lock, Ont., and the Lindsay branch, vice A. McAuley, transferred. The position of Assistant Roadmaster has been abolished.

A. McAuley, heretofore Roadmaster Toronto section, has been appointed Roadmaster Windsor section, and part of the London section to Woodstock in place of E. Murphy, retired. Office, London, Ont. J. E. Steele, who was acting Roadmaster until a permanent appointment was made, has returned to his position as Assistant Roadmaster, London section, at Woodstock, Ont.

H. J. Hunt has been appointed General Yardmaster, Winnipeg Terminals, succeeding D. G. McKay, resigned.

H. G. Buchanan, heretofore chief clerk in the Assistant General Freight Agent's office at Calgary, Alta., has been appointed agent at Edmonton, Alta.

Allan Cameron has been appointed General Traffic Agent (Great Britain and Europe). Office, 62 to 65 Charing Cross, London, S.W., Eng. The circular announcing the appointment is signed by Archer Baker, European Manager.

Dominion Atlantic Ry.—The jurisdiction of the various officers of the D.A. Ry. has been extended over the line of the Midland Ry. of Nova Scotia. The officials are: General Manager, P. Gifkins; Traffic Superintendent, W. Fraser; Auditor, G. A. Parker; General Freight Agent, F. G. J. Comeau, Halifax; General Passenger Agent, F. H. Armstrong; Engineer and Mechanical Superintendent, W. Yould; Roadmaster, D. J. Murphy. With the exception above noted, all the officers are located at Kentville, N.S. H. V. Harris, General Manager, Midland Ry., will remain at Truro until all unsettled matters between the two companies are finally disposed of.

Duluth, South Shore and Atlantic Ry. and Mineral Range Rd.—Jas. Robertson, heretofore Division Freight Agent, Duluth, Minn., has been appointed Assistant General Freight Agent. Office, Hancock, Mich.

Chas. Schaffer has been appointed Traveling Passenger Agent, succeeding E. J. McMartin, assigned to other duties. Headquarters, Duluth, Minn.

Grand Trunk Pacific Ry.—A. B. Smith, heretofore Manager of Construction and Maintenance G.N.W. Telegraph Co., has been appointed Manager Telegraph Department of G.T.P. Ry. Headquarters, Montreal.

A. C. Dennis has been appointed Division Engineer, Prairie Division East, at Winnipeg, succeeding E. R. McNeill, deceased.

Grand Trunk Ry.—Dr. B. P. Brodie, District Surgeon, Detroit, has been appointed Division Surgeon of the Western Division.

Dr. B. L. Riordan, District Medical Officer, Toronto, has been appointed Division

Surgeon of the Northern, Middle and Southern Divisions.

Dr. H. B. Carmichael, District Medical Officer, Montreal, has been appointed Division Surgeon of the Eastern Division.

These officers will perform duties to be assigned them by the Chief Medical Officer, in their respective districts, relieving and permitting him to give attention to an enlarged field of service.

The territory assigned to F. J. Watson, Division Freight Agent, Montreal, has been changed as follows: Stations on main line east of Belleville, Ont., and all lines south of Coteau Junction and south of the St. Lawrence River, east to and including Dixville, Que.

G. L. Nelson, General Eastern Agent National Despatch Great Eastern Line at Portland, Me., has also been appointed Division Freight Agent G.T.R. in charge of the line east of Norton Mills to Portland, inclusive. Office, Portland, Me.

F. A. Nott, heretofore chief clerk Division Freight Agent's office, Stratford, Ont., has been appointed chief clerk Division Freight Agent's office, Portland, Me.

J. J. Connolly has been appointed Trainmaster, 1st and 2nd Districts, vice W. Holmes, resigned. He will report to and receive instructions from the Assistant Superintendent. Office, Island Pond, Vt.

J. J. Connolly having been transferred, G. M. Stone has been appointed acting Chief Train Despatcher, 2nd District, west of Richmond, and 4th and 5th Districts. Office, Bonaventure Station, Montreal.

E. R. Bremner, heretofore Assistant General Freight Agent, Canada Atlantic Ry., has been appointed Division Freight Agent in charge of the G.T.R. line from St. Polycarpe, Que., to Depot Harbor, Ont., inclusive, also Hawkesbury, Rockland and Pembroke branches. Office, Ottawa, Ont.

The jurisdiction of the following officers has been extended over the Ottawa Division (formerly Canada Atlantic Ry.): W. Cuthbert, Fuel and Tie Agent; S. Wells, Claims Agent.

In addition to the appointments mentioned in our Oct. issue the following Canada Atlantic Ry. officials have been retained in the G.T.R. service on the Ottawa division. W. C. C. Mehan, Train Master; F. L. Lamplough, Chief Train Dispatcher; E. J. McVeigh, Division Storekeeper; W. S. Blyth, Travelling Engineer; J. Leslie, Roadmaster District 31; J. Graham, Roadmaster District 30; T. Graham, Roadmaster District 32. They are all located at Ottawa, except T. Graham, who is at Depot Harbor, Ont.

The car service department of the Canada Atlantic Ry. (now Ottawa Division G.T.R.) has been abolished, and a number of the staff have been removed to Montreal.

W. H. Smith, heretofore General Auditor Canada Atlantic Ry., has been appointed Manager of the Canada Atlantic Transit Co. and Canada Atlantic Ry. barge line, in charge of the operation, maintenance and accounts pertaining to the steamers and barges in the service of the companies named, other than questions involving solicitation of traffic and the rates thereon. Officers and employees of the boats will receive their instructions, in connection with their duties, from Mr. Smith, and will be governed accordingly. Office, Ottawa.

We are advised that there has been no change in the location or employment of the following officers of the Canada Atlantic Ry. since it has been taken over by the G.T.R.:—

R. K. Claire, General Agent, Ottawa; S. Ebbs, City Ticket Agent, Ottawa; A. W. Eccleston, Southern Passenger Agent, New York.

J. H. Dull, Trainmaster at Stratford, Ont., has resigned.

T. K. Bremner, formerly secretary to the Division Freight Agent at Hamilton, and

recently in the Division Freight Agent's office at Stratford, has been appointed chief clerk there, succeeding F. A. Nott, transferred to Portland, Me.

The following agents have been appointed: Laprairie, Que., J. Laplante; Sherrington, Que., B. Vautrin; Oakville, Ont., H. D. Galbraith; Aylmer, Ont., S. F. Ball (Rlg); Dunnville, Ont., J. W. Gray; Drayton, Ont., J. Robertson; Attwood, Ont., W. G. McCulla; Belgrave, Ont., Wm. Graham.

Great Northern Rd. (U.S.)—W. F. Hetherington, heretofore assistant in the Montreal office, has been appointed District Freight and Passenger Agent, there, vice C. W. Graves, resigned.

W. Dixon, heretofore in the Division Freight Agent's office, G.T.R., Montreal, has been appointed assistant to Mr. Hetherington.

Intercolonial Ry.—I. L. Burrill has been appointed Paymaster, succeeding E. T. Trites, deceased.

Kootenay Ry. and Navigation Co.—W. R. Allen, of Kaslo, B.C., has been succeeded as Secretary by W. H. Fortier, of Spokane, Wash., who is also secretary of the subsidiary companies, the Kaslo and Slocan and the Bedlington and Nelson Ry.

Midland Ry. of Nova Scotia.—See Dominion Atlantic Ry.

National Despatch—Great Eastern Line.—G. L. Nelson, who has been appointed Division Freight Agent Grand Trunk Ry., at Portland, Me., will continue to act for the N.D.-G.E. Line, there.

Reid-Newfoundland Ry.—W. E. Hamilton has been appointed General Passenger Agent, succeeding H. A. Morine, resigned. Office, St. Johns, Nfld.

Rutland Rd.—F. E. Herriman has been appointed Coal Traffic Manager, with jurisdiction over all matters relating to coal and coke traffic.

H. W. Henry has been appointed General Coal Agent.

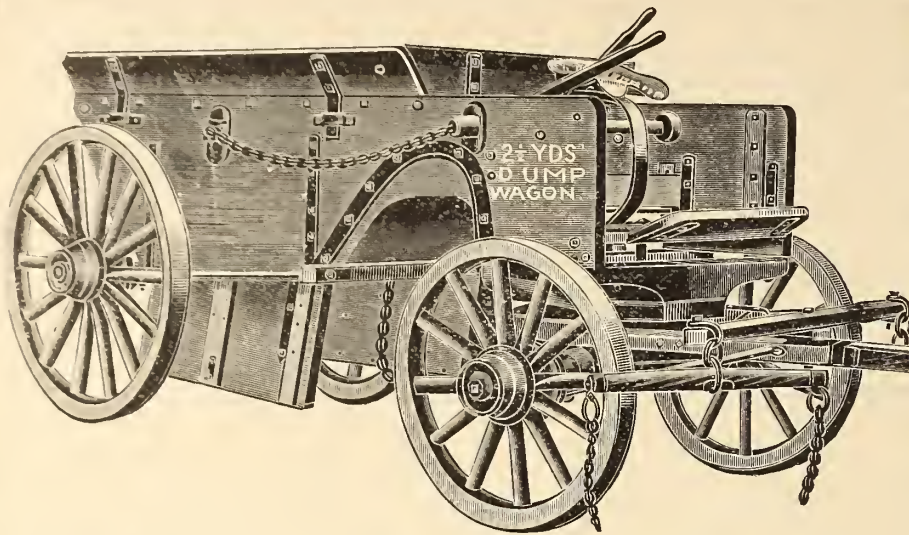
Spokane Falls and Northern Ry.—The duties of General Freight and Passenger Agent, heretofore performed by H. A. Jackson, now Assistant General Freight and Passenger Agent, Great Northern Ry. (U.S.), have been transferred to the traffic officers of the Great Northern Ry. The S. F. and N. Ry. operates the Vancouver, Victoria and Eastern Ry., the Nelson and Fort Shepherd Ry., and the Red Mountain Ry., in British Columbia.

Wabash Rd.—A. O. Cunningham has been appointed Chief Engineer, succeeding W. S. Newhall, resigned. Office, St. Louis, Mo.

The old St. Louis and Western Divisions have been amalgamated under the name of Moberly Division, and R. Doyle, heretofore at Moberly, has been appointed Superintendent of the new division. Office, Moberly, Mo. J. S. Goodrich, who was Superintendent of the other division operated from Moberly, has resigned.

Montreal Street Ry.—The percentage payable to the city on \$2,255,868.75, the company's earnings in the city for the year ended Aug. 30, amounts to \$147,724.10, against \$127,183.29 for the year ended Aug. 31, 1904. The city claims that it is also entitled to a percentage on the company's earnings out of the city, and a case is before the courts to have this point decided. The earnings out of the city for the past financial year amounted to \$271,492.93.

The Sovereign Construction Co. has been incorporated under the Dominion Companies' Act, with a capital of \$1,000,000, to carry on a general contracting business. The provisional directors are:—G. W. Cook, M. O'Meara, Montreal; H. Kennedy, Quebec; E. Dessault, Levis, and a number of United States men and the offices are at Montreal.



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Late Supt. Engineer Messrs Elder, Dempster & Co.
and Canadian Pacific Railway Co., London

T. O. SINCLAIR, M.I.N.E.

Grand Trunk Pacific Railway.

A contract has been let to Foley Bros., Larson & Co., of Winnipeg, Man., and St. Paul, Minn., for the construction of the Lake Superior branch from Fort William to Lake Superior Jet., Ont., about 210 miles, and including a branch into Port Arthur. Lake Superior Junction is the point where a connection will be made with the Eastern Division, which the National Transcontinental Railway Commissioners will construct easterly from Winnipeg. The contract covers the grading, culverts, bridges (except those of steel) and everything ready for the ties and tracklaying. The company will let the contracts for the steel bridges direct, and will do its own tracklaying. The maximum gradient eastbound is 0.4 %, and westbound 0.6 %, and the maximum curvature is 5° compensated. There is a large amount of rock-work on the contract, in one place there being a cutting of 128,000 cubic yards; while across the height of land there is a good bit of shallow muskeg. There are a few bridges on the route, including four large steel ones. The company will build its own stations and put in a water service. There will be a division point about 100 or 110 miles north of Fort William. The work is to be completed in time to have the line in operation in the fall of 1907. O. W. Swenson, who was recently in charge of construction for the firm on the C.P.R. Toronto-Sudbury line at Wahnapiatae, Ont.; will have charge of construction of the G.T.P. branch, with his headquarters at Fort William.

The construction for the company is under the charge of G. A. Knowlton, Division Engineer at Fort William, Ont. The first section is 100 miles in length, and is sub-divided under the charge of A. G. Allan, as Assistant Engineer, for the first 50 miles, with headquarters at Fort William, and G. Macrone, Assistant Engineer in charge of the second 50 miles, with headquarters at Savanne, Ont. The assistant engineers have a number of resident engineers under them, each of whom has charge of from six to ten miles of construction. On the first 50 miles the resident engineers, with addresses, are:—S. Street, R. A. Frederick, Fort William; A. E. Morris, Kakabeka; H. B. Dibblee, Kaministiquia; S. F. Hazelwood, Finmark; J. M. Fotheringham, Buda; and on the second 50 miles, W. R. Smith, C. D. Fairchild, J. S. Leitch, J. A. Vickery and E. R. Brobeck, their nearest post office being Savanne. This second 50 miles runs through unsurveyed territory and a more exact location of the resident engineers cannot be given. The contractors have been completing their storehouses and other arrangements, but have not yet let any sub-contracts.

The question of the Winnipeg terminals has been under consideration by the National Transcontinental Railway Commissioners, the Canadian Northern Ry., and the G.T. Pacific Ry. interests, and the Winnipeg City Council. The Board of Railway Commissioners has also some matters before it in connection with the closing of certain streets on the lands acquired by the Canadian Northern Ry. for its terminals. The proposition is that there should be a joint terminal for the G.T.P. Ry. and the Canadian Northern Ry. This latter company has secured a large area of land for its terminals, and a good deal of the difficulty in arranging for joint terminals is as to the ownership of the land.

The contractors for the line from Portage la Prairie to Touchwood Hills, Man., 275 miles, McDonald, McMillan Co., have let sub-contracts as follows:—36 miles to G. H. Strevel, Portage la Prairie; 10 miles to N. Keith, Portage la Prairie; two miles to W. McQuat, Wellwood; four miles, Roe Bros., Wellwood; five miles, J. A. Munson, Brookdale; 11 miles, J. A. Tierney, Varcoc; two

miles each to W. Carson, G. S. Poole and H. Olsen, Varcoc; five miles, A. J. Selwood, Miniota; 25 miles to J. Bradley, Miniota; two miles to A. D. McCormick, Miniota; seven miles to H. Guilbault, Miniota. The general contractors have camps at four points covering seven miles of the heavy work on the Sand Hills, and anticipate putting on some more steam shovel outfits during the fall. A sub-contract has been let to the Doukhobors for 17 miles of the heavy work, on which it was expected to put on at once about 150 teams and 1,500 men. These contracts cover about 140 miles of the work, which it is expected to have completed ready for tracklaying early in next season. Contracts for an additional mileage are expected to be let at an early date. C. W. McMillan is Manager of Construction; A. T. Fraser, Chief Engineer; J. McLaren, Assistant Engineer; and W. J. Weller, Bridge Superintendent, for the contractors, and the following represent the railway company:—Section 1, from Portage la Prairie, westerly for 86 miles, Assistant Engineer A. M. Jones, who has under him as resident engineers: B. Ripley, Bagot, Man.; H. L. Johnston, Austin, Man.; M. A. Burbank, Carberry, Man.; J. Durie, Sewell, Man.; C. M. Bull, Forest, Man.; R. F. Hickman, Carnegie, Man. Section 2, H. B. Roe, Assistant Engineer, who has as resident engineers: C. E. McLennan, Oak River, Man.; A. E. Stanton, Miniota, Man.; J. Hislop, Birtle, Man.

The plans for the line from Touchwood Hills, Man., to Edmonton, Alta., have been supplied to the Dominion Government, and C. Schrieber, formerly Deputy Minister of Railways, has been commissioned by the Minister of Railways to report upon the location. The company expects to be able to put under contract about 400 or 500 miles of line west of Touchwood Hills, by the end of Nov.

In reference to the terminus of the line on the Pacific coast, reports are current that Vancouver will be chosen instead of Port Simpson or Kaien Island. A press report is also current that a prize of \$250 is to be offered by the company for the best name for the terminus, the competition to be among the school children of the Dominion.

The G.T.R. has placed an order for 150,000 tons of steel rails, the first delivery of 25,000 tons to be made early in 1906.

The Canada Car Co.'s shops at Montreal have a complete fire extinguishing plant. For this 4,400 ft. of hose were purchased from the Canadian Rubber Co. of Montreal.

F. R. Carney, formerly of the W. U. Telegraph Co., Chicago, and latterly local manager of the G.N.W. Telegraph Co.'s Ottawa office, has been appointed manager of the G. N.W.T. office in Montreal, succeeding W. B. Powell.

W. J. Duckworth, heretofore Inspector of offices, Great Northwestern Telegraph Co., has been appointed Superintendent of Construction and Maintenance, to succeed A. B. Smith, appointed Manager Grand Trunk Pacific Ry. Telegraph Department. C. D. Dawsey succeeds Mr. Duckworth as Inspector.

A Winnipeg despatch dated Oct. 26, states that a Union depot for the Canadian Northern Ry., and the G. T. Pacific Ry., has been decided upon, and that it will be built almost in the heart of the city, just north of the present terminals of the C.N.R. The Great Northern Ry. (U.S.) and the Northern Pacific Ry., are also interested in the terminals. The yards and terminals will be entirely re-constructed, and it is considered probable that the C.N.R. and the G.T.P. will have separate freight yards, those of the former being at St. Boniface. The new terminals will, it is stated, cost between \$3,000,000 and \$4,000,000.

C.P.R. Betterments, Construction, Etc.

Chateau Frontenac Extension.—The C.P.R. has purchased several properties on St. Louis St., Quebec, and is negotiating for some other adjoining properties in connection with the plans for the extension of the Chateau Frontenac.

Angus Shops Extension.—Permits have been granted by the Montreal City Council for the erection of five new buildings near the Angus shops. The buildings will include car and paint shops 107 ft. frontage by 321 ft. deep, 30 ft. high, to be constructed of brick with a flat roof; scrap iron shed 303 by 30 ft.; a dry kiln 85 by 44 ft.; a two-story lunch room and dwelling 116 by 70 ft., and a second lunch room to be a single story building 116 by 70 ft.

Ottawa Terminals.—Plans have been filed at Ottawa for terminals, freight sheds and stations, on the east side of the canal, south of Laurier Ave., Ottawa. About one-half of the land required is reported to have been purchased, and negotiations are in progress for the remainder. The carrying out of the plans will necessitate the closing of Nicholas St. for some portion of its length. Considerable opposition is being manifested to the plans, and it is expected that the Railway Commissioners will be asked to direct the formation of a terminal company to provide a joint station, etc. for all lines entering Ottawa.

Victoria Harbor Line.—The surveys for a line from Victoria Harbor to a point on the main line between Montreal and Toronto, are being pushed, and preliminary reports show that a gradient of 3-10 of 1 % may be secured. The point of junction with the main line has not been decided, though Peterboro', Have-lock and a point near Sharbot Lake, Ont., are all suggested. J. W. Leonard, Assistant General Manager, Eastern lines, stated in a recent interview, that the line would be an expensive one to construct. A short route with the easiest gradients was what the company aimed at, and the selection of the point of junction would depend wholly upon the suitability of the location as reported upon by the engineers.

Stratford-Listowel Branch Lines.—The plans for the construction of a branch from the Guelph and Goderich Ry., at the boundary of Waterloo and Perth counties into Stratford, Ont., and from Linwood on the same line to Listowel, have been approved by the Board of Railway Commissioners. The Stratford branch will connect with an extension of the Tillsonburg, Lake Erie and Pacific Ry., from Ingersoll, via St. Mary's to Stratford.

Fort William-Winnipeg Second Track.—The work of constructing the second track between Fort William, Ont., and Winnipeg, Man., is being proceeded with east and west from Kenora, Ont., where the heaviest rock work is encountered. During the current year work will be chiefly done on changes of line necessitated by the grade improvements, but as soon as navigation closes and the shipment of wheat cases off, the work of widening the rock cuts will be commenced. Earth cuttings will be taken out this fall and until the severe weather makes it too expensive to move that material. Masonry for double track bridges will be proceeded with and it is expected to get out stone and to work in the quarries all winter. All the tunnel work will be carried on during the winter, and pushed to completion without interruption. Changes of line occur between Cross Lake and Ingolf, Deception and Busted, east and west of Snell, east of Parry, and one change on the Fort William section east of Dexter. The maximum gradients will be 0.4 %, both east and west bound, and the curvature will be practically the same as at present where no line changes occur. Press reports state that sub-contracts have been let by Foley Bros. and Larson as follows:

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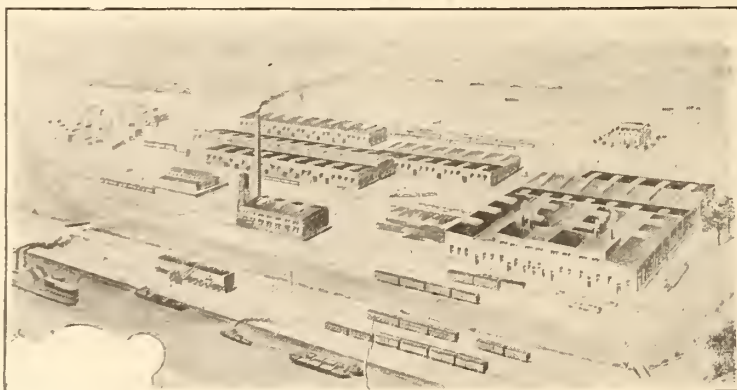
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Railway Freight and Passenger cars, both wood and steel, of all descriptions and styles; street cars, car wheels, castings, forgings, and all equipment necessary for car construction.

Capacity—7500 freight cars, 150 passenger coaches per year.

ORDERS SOLICITED

Two miles at Cross Lake to J. E. Bostrom; two miles at Kilmar, including 400 ft. of tunnel, to Larson Bros.; three miles near Osterlund to F. Peterson & Co.; and two miles at Scovil to J. Moran.

Poling Yard at Fort William. With the increased output of wheat in the Northwest the C.P.R. last year found that its facilities for handling the traffic at Fort William, Ont., would soon become inadequate. During the months of navigation on Lake Superior practically all the freight to and from the west is handled at this point. The C.P.R. has six elevators, coal docks, freight and flour sheds located there, and besides this there are two private elevators, private coal docks, etc. The grain is inspected in Winnipeg and taken to Fort William, where it is re-inspected and cars marked for the different elevators. In the fall rush—from the end of September till the close of navigation—it is very hard to get the grain switched to the elevators as fast as it comes in, and it was therefore decided to handle all the grain in separate yard, and locate the latter at West Fort, about two miles west of Fort William. The new yard is laid out for a no. 7 frog angle; which is the standard frog angle in yards on this road, the yard tracks are all spaced at 13 ft. centres, the poling track at 13 ft. from running track except along the distribution yard lead where the distance is increased to 11 ft. to allow room for switch stands. The yard tracks will be laid with 60 ft. steel, leads, poling and running tracks with 72 lb. steel. All switches will be split switches. The main line to the north of the yard rises west at a gradient of 0.2%. The grade for receiving tracks will be kept 0.075%, falling east, and the poling and running tracks raised sufficiently to allow a fall of 0.2% on the west distribution yard lead, and a fall of 0.3% from the lead in the receiving yard for 300 ft. The main lead branches off the main line about 100 ft. east of the diamond crossing with the Canadian Northern Ry. All grain trains will pull into the receiving yard which has a capacity of 410 cars. Each track is sufficiently long to take a train of 40 cars, which is the largest train the C.P.R. can handle from Dexter—50 miles west—into Fort William. The distribution yard contains 12 tracks, and has a capacity of 390 cars. The sorting yard which was estimated to cost \$110,000 was opened for traffic Sept. 29.

Macleod Deviation. It has been arranged to construct a deviation of 3.9 miles so as to give the C.P.R. a line into Macleod, Alta. The deviation will start from mileage 140.8 on the Lethbridge section, and will join the Crow's Nest Pass line at Macleod Jct. The deviation will be constructed at once, and a contract will be let for the work at an early date.

Columbia and Western Ry. A survey is reported to be in progress on this line in the vicinity of Rossland, B.C., by J. McLatchie, of Nelson, B.C.

A. B. Smith, who has been appointed Manager of the Grand Trunk Pacific Ry. Telegraph Department, with office in Montreal, is a native of that city, where he entered the service of the Montreal Telegraph Co. at an early age as messenger, being advanced to the positions of clerk and operator. In 1870 he was appointed chief operator at Hamilton, Ont.; in 1872 travelling inspector for Ontario; in 1880 Division Superintendent at Ogdensburg, N.Y.; in 1883 general inspector, and in 1889 superintendent of construction and maintenance for the entire Great Northwestern Telegraph Co.'s system, into which the Montreal and Dominion Telegraph Co.'s lines had been merged. He is a past president of the Canadian Electrical Association and has on various occasions performed special service work for the Dominion Government.

A Disastrous Lake Storm.

A heavy gale swept over the Upper and Lower Lake regions between the night of Oct. 19 and the morning of Oct. 21, during which period 42 vessels were either wrecked or damaged, and 23 lives lost. The largest loss of life was in the sinking of the schooner Minnedosa, owned by the Montreal Transportation Co., Montreal, in Lake Huron, with her entire crew of eight. The Minnedosa was built at Kingston, Ont., 1890, her dimensions being: length, 245 ft.; breadth, 36.3 ft.; depth, 15.1 ft.; registered tonnage, 1,041 tons. She had a cargo of 75,000 bush. of grain, and was, together with the schooner Melrose, in tow of the company's str. Westmount, and was bound to Montreal. It has been alleged that the schooner was overloaded, but this is denied by the company's officers. A statement has been made by an officer of the Department of Marine, that no control can be exercised over vessels loading grain for inland ports, the Department's jurisdiction extending only to vessels taking grain cargoes to ocean ports. A list of the losses on the different lakes shows the following:—

LAKE ERIE.—Total losses—Str. Sarah E. Sheldon; schooners Commerce, Tasmania, Yukon. Partial losses—Strs. Siberia, F. H. Prince; tug Walter Metcalfe.

LAKE HURON.—Total losses—Str. Joseph H. Fay; schooners Mautence, Minnedosa. Partial losses—Tug boats Margretta, Signet; despatch boat Whistler; schooners Katadin, Emma Nelson, D. P. Rhodes.

LAKE MICHIGAN.—Total losses—Tug Irene; schooners G. Cuyler, J. V. Jones, Kate Lyons, Lydia, Vega.

LAKE SUPERIOR.—Total loss—Schooner Alta. Partial losses—Schooners Foster, Galatea, Nirvana, Olga, Oregon; tug Perry.

A number of other vessels were disabled, but not so seriously damaged.

Orders by the Railway Commissioners.

Following additional orders to those on pg. 513 have been issued by the Board of Railway Commissioners.—

No. 657. Sept. 14. Dismissing application of Robert Reid under section 186 of the Railway Act, 1903, to compel the Canada Atlantic Ry. to provide certain highways in Nepean tp., across the company's railway.

No. 662. Sept. 12. Sanctioning location of the Canadian Northern Ry. through townships 8 to 10, range 26, W.P.M., being mileage 23 to 36.34, reckoned from Hartney, Man.

No. 688. Sept. 28. Authorizing the Lake Erie and Detroit River Ry. to take part of lots 39, 41, and 12, on the south side of Talbot Road east, in Southwold tp., Elgin Co.

ELECTRIC RAILWAYS.

Quebec Railway, Light and Power Co.

The directors' report presented at the annual meeting recently gave the result of operations for the year ended June 30, 1905. The net profits were \$58,611.13, which, added to the balance of profit and loss account, increased the amount at the credit of that account to \$211,629.05. The result of the year's business was very satisfactory, the favorable climatic conditions of last winter materially assisting the company in the results obtained. The largely increasing business naturally demands a careful study of its future requirements, the most pressing of which is the necessity of more power. With this object in view, the directors, after a careful study of the situa-

tion, have deemed it advisable to take advantage of the natural facilities offered them to proceed with the construction of a new dam at the foot of the Natural Steps on the Montmorency River. This dam, when completed, will act as a storage reservoir in low water periods and prevent the waste of water so badly needed during these periods, enable the company to operate its present power plant to its full capacity at all times and give an additional 500 h.p. at the new dam. The construction of this work is now proceeding very satisfactorily.

The report of E. A. Evans, General Manager, respecting the operation of the railway portion of the company's undertaking follows:

CITADEL DIVISION. During the year 1,741,708 passengers were carried, an increase of 283,947 over the previous year. The car mileage has been 1,156,777, an increase of 18,231 miles over the previous year; sweeper mileage, 5,731, a decrease of 5,834 miles, due to the favorable climatic conditions of last winter. The operating expenses represent 11.51c. per car mile, a reduction of three-tenths of a cent over last year. Owing to the great increase in the passenger travel, especially during the summer months, it is now necessary to add at least six more open cars to the rolling stock of this division. The necessity for this is shown from the fact that during the past summer the 28 open cars now in operation have been carrying an average of over 100 passengers per hour.

THE MONTMORENCY DIVISION, which runs from Quebec to Montmorency and Ste. Anne de Beaupre, continues to show marked increases, the number of passengers carried being: by electric trains, 816,393; by steam trains, 130,677; making a total of 947,070; an increase on the electric trains of 95,063 passengers, and a decrease upon the steam trains of 25,303, making a total increase of 69,760 passengers over last year. The continued increase in passengers again requires more rolling stock and the purchase of three large cars, with electrical equipment for one, is recommended. No accidents or injuries to passengers have occurred during the year. The freight business is still showing good increases, being 44,813 tons, as against 35,313 the previous year, an increase of 9,500 tons; and notwithstanding the fact that during the year 10 new flat cars and 6 new box cars have been added it is still necessary, in order to properly satisfy the requirements of the services, to add 5 additional flat cars and 5 additional box cars. The Kent House hotel and park have been the means of very considerably increasing the travel upon this division, as evidenced by the increase of passengers carried in the elevator this year, the number of passengers carried being 171,947 as against 116,772, an increase of 28,175 passengers.

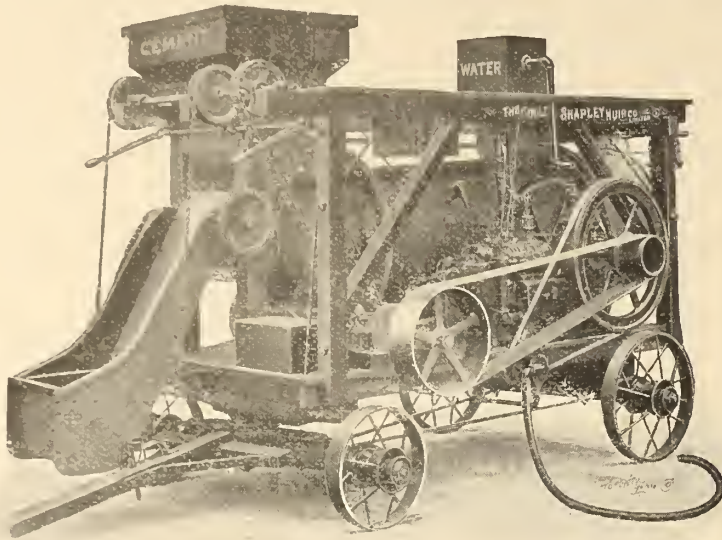
ASSETS.

Road and equipment, real estate, build-	
ings, etc., including Kent House	\$5,442,949 21
Cash on hand and in bank	10,661 26
Power division operating, including	
accounts due, stores for operating	
equipment, etc.	44,354 82
Kent House operating account	9,735 29
Citadel division operating account,	
represented by stores on hand	10,690 53
Montmorency division operating ac-	
count, stores on hand, cash assets, etc.	33,166 46
Accounts receivable	9,968 30
	<hr/>
	\$5,561,528 57

LIABILITIES.

Capital stock	\$2,500,000 00
Bonds	2,500,000 00
Preferred capital stock	\$ 500,000 00
Less in treasury	250,000 00
	<hr/>
Bills payable	20,187 50
Accrued interest account	23,646 63
Accounts payable	56,064 59
Profit and loss account	211,629 85
	<hr/>
	\$5,561,528 57

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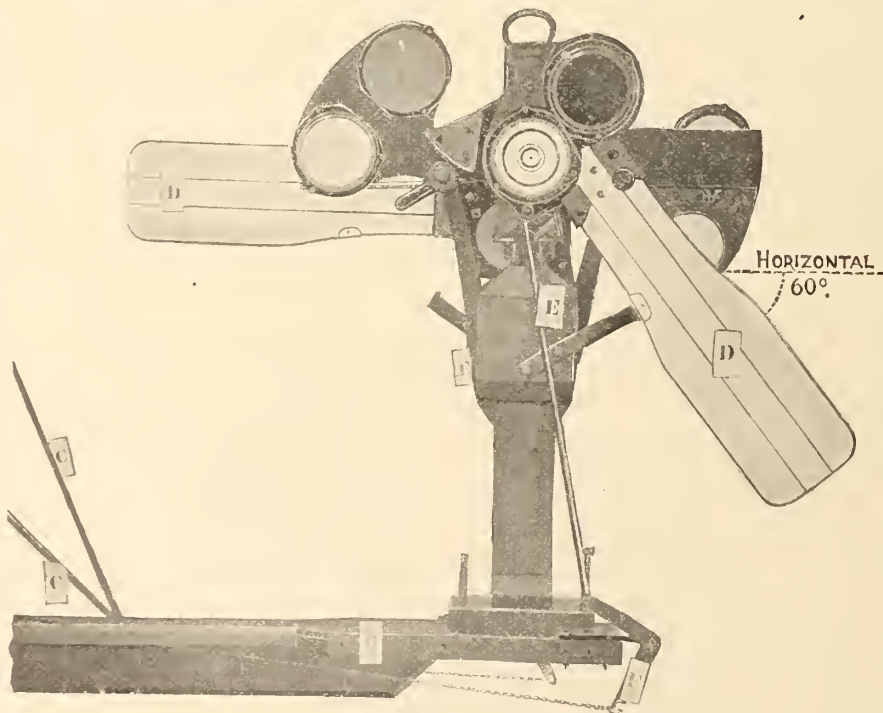
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Arr. Lowell	*7.29 p.m.,	*6.37 a.m.
" Worcester	*9.04 "	*9.19 "
" Boston	*8.15 "	*7.30 "

VIA G.T.RY., AND WHITE RIVER JCT.

Lv. Montreal	*9.01 a.m.,	*8.40 p.m.
Arr. Lowell	*6.11 p.m.,	*7.17 a.m.
" Worcester	*9.04 "	*9.19 "
" Boston	*6.55 "	*8.05 "

VIA G.T.RY., WEST SHORE & ROTTERDAM

Lv. Toronto		*4.10 p.m.
" Niagara Falls		*6.15 "
" Buffalo	*4.30 a.m.,	*7.20 "
Arr. North Adams	*1.05 p.m.,	*5.08 a.m.
" Worcester	*4.55 "	*8.59 "
" Boston	*5.20 "	*9.50 "

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Through the Heart of the White Mountains and famous Crawford Notch, via C.P.Ry.

Lv. Montreal	*9.00 a.m.,	*7.45 p.m.
Arr. Portland	*7.45 p.m.,	*8.05 a.m.
" Old Orchard	*8.16 "	*8.42 "

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OWEN SOUND, ONTARIO

PROFIT AND LOSS ACCOUNT.

Balance at credit of profit and loss account, June 30, 1904.....	\$ 152,988.72
Net earnings for year 1904-05.....	\$202,465.73
Less interest on bonds, preferred stock, etc., paid and accrued.....	143,824.60
	58,641.13
Balance at credit of profit and loss account, June 30, 1905.....	\$ 211,629.85

British Columbia Electric Railway.

Following are extracts from the eighth annual report of the directors presented at the annual meeting in London, Eng., Oct. 16:

For the year ended June 30 the gross receipts show an increase over the previous year of \$91,687, and the net earnings, after charging renewals, show an increase of \$44,531. The following charges have been made against the revenue account of the year:

Provision for renewals, maintenance (from which £8,645 18s. 7d. has been deducted for expenditure on renewals during the year).....	£16,564 18 11
Bonus to employees.....	3,611 2 8
Written off preliminary expenses.....	1,862 4 8
Added to capital amortisation fund.....	1,725 1 6
Net profit for year.....	57,876 15 7
Balance from 1903-04.....	2,222 5 6
	£60,099 1 1
Dividends paid.....	35,648 10 0
Leaving available for distribution.....	£24,450 11 1

From this it was decided to pay further dividends, including 3% on the deferred ordinary stock, which would absorb £16,572 7s. 4d.; to write off the balance of the preliminary expenses, £1,650 13s. 4d.; to add to reserve fund, £4,460 10s. 4d., and to carry £1,767 0s. 5d. to next year's account. The number of lights in use June 30, was 136,512, an increase of 23,601 over the number in use same day 1904. The number of passengers carried during the year was 10,352,451, an increase of 1,482,965. During the year £107,445 16s. 8d. has been spent in extensions and improvement of the company's property and equipment. A line has been built to the Gorge in Victoria, and a recreation ground covering 10 acres has been laid out at the end of the line. The Gorge extension has proved very popular with the Victoria public and with visiting tourists. In Vancouver a line has been built to Kitsilano (Greens Beach). This line was opened July 4, and has since been very largely patronized. A traffic arrangement has been made with the C.P.R. in reference to its line built from Vancouver to Steveston, the principal town on Lulu Island and the centre of the salmon fishing industry on the Fraser River. Under the arrangement made the B.C. Electric Ry. has electrified the line, and has operated it since July 4. The operation is an unqualified success. In pursuance of the company's well-established policy of giving the public the benefit of cheapened cost of production, voluntary reductions have been made during the year in the prices charged for electric light. The Vancouver power installation has been completed during the year and is now in full operation. The directors are much gratified by the success of this very important undertaking, the results of which have exceeded their expectations. The full benefit of this new source of power was not obtained until June 1, so that the year's accounts are not largely affected by it. Practically the whole of the share capital of the Victoria Gas Co. has been acquired, and steps are being taken to improve and extend its plant. The results, for the current financial year, of taking over the Vancouver Gas Co. have been

entirely satisfactory to the company, and have been equally beneficial to the consumers, to whom the charge for gas has been reduced. F. S. Barnard and the Hon. R. G. Tatlow, M.P., have been appointed as an advisory committee, resident in British Columbia. J. Buntzen, who has hitherto acted as General Manager in British Columbia with such conspicuous success, has been appointed Managing Director, and, although he will in future reside in England, he will visit British Columbia periodically. R. H. Sperling, who for a number of years has been General Superintendent in British Columbia, has been appointed his successor. F. Hope, for many years the Secretary of the company in England, has been appointed Assistant Manager in British Columbia. During the early period of the current year, at the suggestion of the B.C. management, an accountant, in whom the directors have full confidence, was employed to visit British Columbia with wide powers to investigate the company's affairs. His report was of an entirely satisfactory character, and quite confirmed all the advices that had been received from British Columbia and the opinions previously formed by the directors. The share of profits distributed among the employees for the year amounts to \$15,400. G. P. Norton, R. K. Sperling, T. B. Brown and J. Buntzen, the retiring directors, offer themselves for re-election.

Following are comparisons: Railway earnings, Vancouver, \$246,205 against \$196,609; Westminster, \$141,955 against \$132,198; Victoria, \$130,294 against \$122,382. Electric light, Vancouver, \$260,256 against \$244,912; Victoria, \$124,304 against \$115,226. Total earnings, \$903,014 against \$811,327; total expenses, \$573,487 against \$526,331; net earnings, \$329,527 against \$284,996. Percentage of expenses to gross earnings after charging renewals, 63.50 against 64.87.

Projects, Construction and Betterments.

Berlin to Wellesley, Ont.—As a result of a meeting held in Berlin, Ont., recently, an effort is being made to secure the construction of an electric railway from Berlin, through Wellesley township. The Preston and Berlin Electric Ry. is being negotiated with as to the probability of an extension of its lines through the district named.

Brandon, Man.—We are advised that the Kensington-Brandon Land and Development Co. proposes to construct ten or twelve miles of single track, on such streets as may be agreed upon between the council and the company. The franchise being asked for is 30 years and renewable. The petition for the franchise is being prepared and will be submitted at an early date. (Oct., pg. 487.)

British Columbia Electric Ry.—The initial length of the street railway line to be constructed in North Vancouver, B.C., will be about five miles. It will start from the foot of Lonsdale Ave., and continue along that avenue to 19th St., with branches therefrom as may be arranged between the council and the company. The company agrees to begin construction within six months from the date of the agreement, and to complete and operate the line within twelve months after the commencement of construction. The franchise under which the agreement was reached was passed by the people July 10, and includes the right to operate street lighting, incandescent lighting, and power systems as well as the street railway. The power for the operation of these systems will be furnished by tapping the transmission line at a point near Hastings, and carrying the line across the second narrows of Burrard Inlet to North Vancouver. (Oct., pg. 487.)

Buffalo, Niagara and Toronto Ry.—Application will be made next session of the Dominion Parliament for an Act incorporating a company with this title with power to construct a line of railway from Niagara River, at Niagara-on-the-Lake, Ont., to St. David's, thence to the International boundary at Fort Erie; from St. David's to St. Catharines; from a point on the main line to Port Colborne, and from another point on the main line to Welland, with power to construct branch lines. Power is also asked to operate steamers and ferries in connection with the railway. Collier and Burson, solicitors, St. Catharines, are acting for the promoters.

Carleton Electric Co.—The C.E. Co. is discussing the desirability of applying next session of the New Brunswick Legislature for an act to authorize it to construct an electric railway from the corner of Adelaide Street, to Millidgeville, with power to use a portion of the tracks of the St. John Ry.

Cornwall Electric St. Ry.—An arrangement has been made with the Stormont Electric Light and Power Co., for the erection of a joint office and store building on Second St., Cornwall, Ont.

Grand Valley Ry.—The entrance of this line into the city of Galt, Ont., was effected Oct. 6, when the first cars were run. The line has been in operation from Brantford to the Galt boundary for over a year, during which period negotiations for an entrance were in progress.

Hull Electric Co.—Press reports are again current to the effect that the C.P.R. is negotiating for the sale of the Hull Electric Co.'s railway and franchises.

Huron and Ontario Ry.—The location plans of a portion of this company's electric railway, from near St. Clair Ave., Toronto Jct., to Edgeley, near Yonge St., Thornhill, have been approved by the Board of Railway Commissioners. This line is projected from Port Perry to Southampton and Kincardine, with branches to Georgian Bay. Surveys have been in progress during the summer from near Thornhill to Markham, evidently a continuation of the Toronto Jct.-Edgeley survey. The company has opened an office in the Confederation Life Building, Toronto. (Dec., 1904, pg. 425.)

The Lake Achigan Electric Tramway is projected from St. Jerome, via Shawbridge to Lake Achigan and New Glasgow, Que., about 25 miles. By building a double dam at Lake Achigan 1,500 h.p. can be developed. It is intended to be wholly a lumbering road, and it is hoped to make a start with construction in the spring. (Oct. pg., 487.)

Longueuil Street Ry.—The Longueuil Town Council has passed a by-law granting a 20 years' franchise to the L.S. Ry. The by-law provides that if the company fails to run its cars to the city, the council may, on six months' notice, compel the surrender of the charter; the council also reserves the right to purchase the undertaking at any time at a price to be fixed by valuation. The right is given to lay its tracks on any streets except St. Alexander and Guillaume streets.

Montreal Park and Island Ry.—Following are the officers and directors for the current year: President, Hon. L. J. Forget; Vice President, K. W. Blackwell; other directors, Col. F. C. Henshaw, Sir H. M. Allan, W. G. Ross, F. L. Wanklyn, D. McDonald.

Niagara Falls Park and River Ry.—The International Ry. Co., which operates the N.E., P. and R. Ry., has been refused permission by the Commissioners of Queen Victoria Park, Niagara Falls, to use some of the electricity generated at its Canadian power house for the operation of some of its lines on the U. S. side of the Niagara river.



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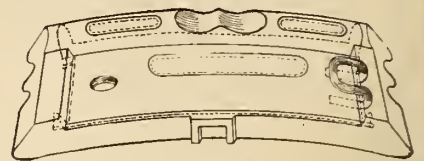
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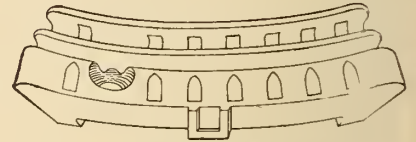
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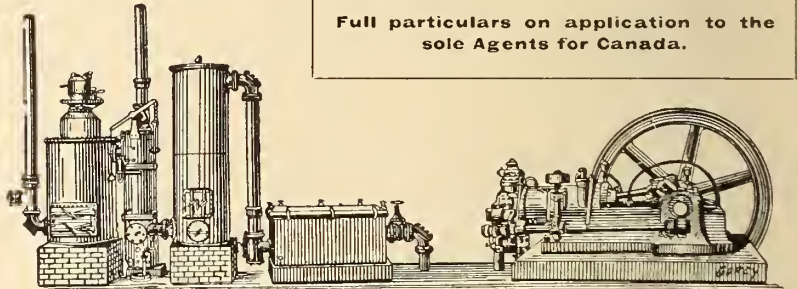
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The Ontario Electric Ry. has been unable to secure anything in the way of a franchise over the streets or roads in the vicinity of Toronto, and a Kingston report states that it is proposed to apply next session of the Ontario Legislature for an act to give special powers so that an entrance may be secured into Toronto. The company is reported to have secured approval for its route from practically all the municipalities interested from Cornwall to near Toronto.

Pembroke, Ont.—Application will be made next session of the Ontario Legislature for an act incorporating a company to construct an electric railway in Pembroke, and through the townships of Pembroke, Stafford, Westmeath, Bromley, Ross, Horton, Adamston, Alice, Petawawa, and Buchanan, all in the county of Pembroke, Ont. Power will be asked to construct the line, or branches, in sections; to make agreements with other corporations, etc., to amalgamate with other similar companies, to construct telegraph and telephone lines, to acquire water powers and sell power, and to lease or purchase lands for pleasure grounds. It also will ask for power to issue bonds to the extent of \$20,000 a mile of line constructed. J. G. Forgie, Pembroke, Ont., is solicitor for the promoters.

Quebec Ry., Light and Power Co.—The report of E. A. Evans, General Manager, presented at the recent annual meeting, contained the following reference to the dam now under construction at the Natural Steps of the Montmorency River: "Immediately after the decision to construct the new dam on the Montmorency River, steps were at once taken to procure the necessary plan and commence operations; these were, however, considerably delayed, owing to the difficulty in obtaining the plant and material. This dam, when completed, will be of immense advantage to the company, and a very valuable addition to the plant. From the bed of the river to the crest of the dam, will be a height of 80 ft., and the feed pipe will be placed so as to give an effective working head on the water wheel of 60 ft. The length of the crest of the dam will be 240 ft. or 25 ft. less in width than the present dam, and ample provision has been made for exceptional floods, an allowance of 12 ft. of water over the crest having been provided for. The width of the dam at the bottom will be 65 ft. 4 in., and on the top 12 ft. The design of the dam being of the utmost importance, has been submitted to and approved by W. C. Johnson, of Niagara and Shawenegan, and M. Merriman, of Lehigh University, possibly two of the most eminent hydraulic engineers on the continent. The progress of the work has been satisfactory, the excavation for the 12 ft. waste pipe or by pass is practically completed, as also that for the 10 ft. feed pipe. This excavation has been entirely in rock, and amounts to approximately 5,600 cubic yards, making over 11,000 tons of rock excavated and placed alongside the crusher, ready for breaking into material for concrete. The 12 ft. waste pipe is built in sections and partly lowered into position, and the 10 ft. feeder pipe, together with the manholes, vent pipes, head gate girders, rack bars, etc., have all been built, put together, and are now ready to be placed in position. The superintendence of the construction work is in the hands of T. E. Wade, of Peterboro', Ont., and is being carefully watched over by W. Langford, the Company's Mechanical Superintendent."

St. John Ry. The St. John, N.B., City Council has been asked by petition not to permit the construction of a double electric track on Paradise Row, which the company is desirous of laying. The question of an extension of the company's lines into Lancaster parish is also under consideration, the com-

pany seeking some modifications of the agreement made about two years ago.

Toronto and Hamilton Ry.—At a meeting of shareholders held in Toronto on Oct. 2, of the Electrical Development Co., a resolution was passed ratifying an agreement made with the T. and H. Ry. This agreement provides for the construction of an electric line between Toronto and Niagara Falls, the railway company, in exchange for the right of way, undertaking to construct the line and pay the interest on half of the cost of the right of way. The agreement is for a period of 99 years. The power company is to have the right to patrol the line with its cars, and its officials and operating staff are to have free transportation. The right of way between Niagara Falls and Toronto is 80 ft. wide, so that after the erection of the transmission towers there is left a space sufficient to accommodate a double-track railway.

Windsor, Essex and Lake Shore Rapid Ry.
A meeting was called to be held Oct. 19, for the purpose of sanctioning a contract entered into by the directors for the construction and equipment of the line; to authorize the issue of bonds to the extent of \$20,000 a mile for the construction of the line and to sanction a mortgage of all the company's property, both real and personal, rights and franchises, to secure the bonds. The notice calling the meeting was signed by J. W. Goodson, Secretary, Windsor, Ont.

Winnipeg Street Ry.—A proposition has been laid before the St. Boniface, Man., council for the extension of the street railway from Norwood bridge south by way of St. Mary's road to the town limits. Further extensions of the line are under consideration.

Winnipeg, Selkirk and Lake Winnipeg Ry.—Press reports state that this line, which extends from Winnipeg to Selkirk, Man., and has power to construct various extensions, is about to be transferred to the Winnipeg Electric Street Ry. The line was projected as an electric railway, but had power to operate by steam temporarily, and has been so operated since 1903. In the event of the transfer taking place it is stated that it will be operated by electricity, and that a regular freight and passenger service will be inaugurated. One press report states that the poles for the power line have been ordered, and that the line will be equipped with electric cars, etc., by Dec. 31.

Electric Ry. Finance, Meetings, Etc.

British Columbia Electric Ry.—Gross earnings for Aug. railway, lighting and power, \$98,001; working expenses, \$50,808; renewal funds, \$8,500; net earnings \$38,693, against \$68,481 gross earnings, \$38,893 working expenses, \$6,695 renewal funds, and \$22,893 net earnings for Aug., 1904. Approximate income for investments, \$5,-467; net income \$44,160, against \$2,750 income from investments, and \$25,643 net for Aug., 1904. Net earnings for two months ended Aug. 31 \$84,550, against \$51,089 for same period 1904.

Halifax Electric Tramway. Railway receipts for Sept. \$18,669.26, against \$17,862.47 for Sept., 1901.

**Kingston, Portsmouth and Cataraqui Elec-
tric Ry.**—Following are the officers and di-
rectors for the current year: President, H.
W. Richardson; Vice-President, R. V. Rogers;
Secretary and Treasurer, W. F. Nickle;
Superintendent, H. C. Nickle; other direct-
ors: G. Richardson, B. M. Britton, H. D.
Ross.

Oshawa Ry.—Following are the officers and directors for the current year: President and General Manager, E. W. Rathbun; Secretary-Treasurer, C. A. Millener, Auditor, G. W. Wright; other directors: T. Ahearn, W. Y. Soper.

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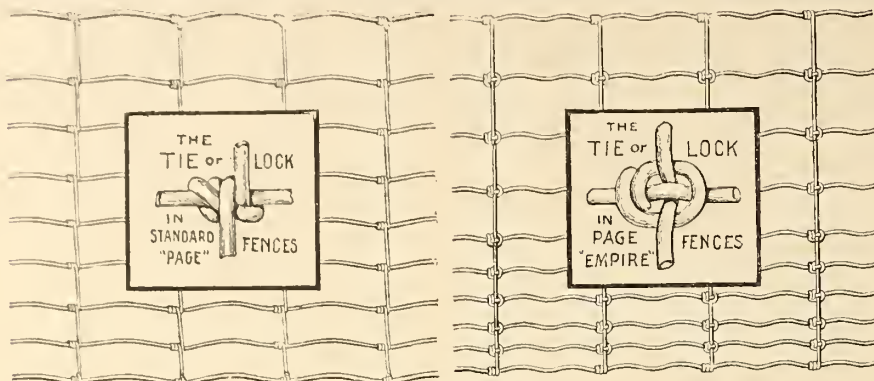
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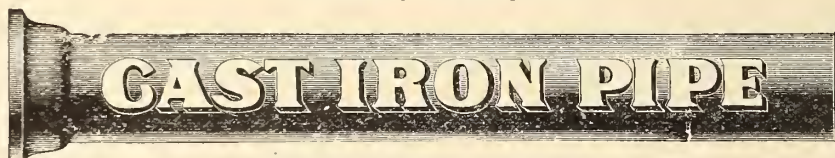
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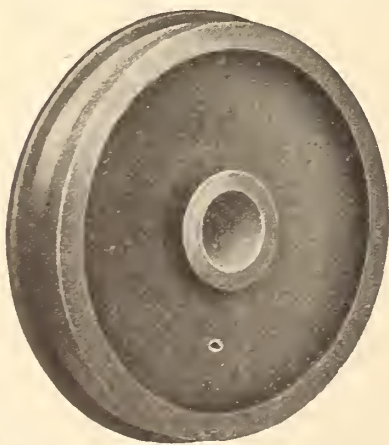


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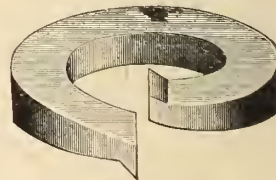
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Electric Railway Notes.

The Montreal Street Ry. Co. has awarded the contract for building its new car sheds to the Canadian White Co., Montreal.

J. J. Gibson, Superintendent of Hamilton Radial Ry., was presented with a roller top desk by the employees Sept. 30, on the occasion of his marriage.

H. T. Smith, who died in London, Ont., Sept. 29, drove the first street car in the city, and subsequently became Superintendent of the line.

We were advised Oct. 16 that the positions vacant on the London Street Ry. by the resignation of C. E. A. Carr, Secretary-Treasurer and General Manager, and of C. Tolmie, cashier, had not been filled.

D. Moyle, Toronto, is seeking to recover from the Von Echa Co., Woodstock, Ont., 5% commission on the sale of \$200,000 of bonds of the Grand Valley Ry., which has just been completed from Brantford to Galt, Ont.

J. H. Wallace, formerly assistant to the Chief Inspector, Toronto Ry., has been appointed General Superintendent of the Monterey Street Railway, in Mexico, which has been acquired by W. Mackenzie, of Toronto, and associates.

T. D. Benson is reported to have been appointed Secretary-Treasurer, and it is stated that no manager will be appointed. C. E. A. Carr, who recently resigned held the positions of Secretary-Treasurer and General Manager.

C. E. A. Carr, who recently resigned the General Managership of the London Street Ry., is reported by a London paper to have been appointed General Manager of the Winona Electric Ry., Winona, Montana. There does not appear to be a Winona in Montana. Possibly Winona, Minnesota, is meant. Another report states that Mr. Carr has been appointed General Manager of the Electric Company at Helena, Mont.

The Montreal Street Ry. has adopted as its standard the pay-as-you-get-on-car, described on pg. 263 of our June issue. The new car has proved very successful, the public having got accustomed to it, and the collection of fares upon entering the car is not a source of delay. Since this type of car has been in use, there has not been a single accident by persons getting on or off the same. Financially the car receipts show an increase of about 20% in earnings over the other types of car.

A. F. Townsend, who has been appointed Acting Manager, Cape Breton Electric Co., Sydney, N.S., has been engaged with electric railway, light and power companies since 1893, among the positions held being: Superintendent Lewiston and Auburn Electric Light and Power Co., Auburn, Me.; Superintendent of Distribution, Lowell Electric Light Corporation, Lowell, Mass.; Superintendent of Construction, Ponce Ry. and Light Co., Ponce, Porto Rico; General Superintendent Ponce Ry. and Light Co.; General Superintendent Cape Breton Electric Co.

The Electric Railway Employees' Union at its recent convention adopted a proposal to provide pensions for aged members. This involves the increase of the per capita tax from 10c. to 15c. a month, and the devotion of the increase to the creation of a fund of \$10,000. The plan provides for a pension of \$1 a week for members of 10 years' standing, \$2 a week for members of 15 years' standing, and \$3 a week for members of 20 years' standing, who have reached the age of 65 years and upwards, who are prevented from following their occupation. The Toronto branch of the union has adopted the plan, and taken the necessary steps to put it into effect.

The Vancouver Power Co., Ltd.

This company was incorporated in 1898 for the purpose of developing the Coquitlam Lake water power to supply the cities of Vancouver and New Westminster, B.C., and the adjoining municipalities with power, light and a general electric service. The first scheme of development did not include Trout Lake, but consisted of a long ditch and flume line, extending from the outlet of Coquitlam Lake to a point near Port Moody, where it was then proposed to have the power house located. This plan was found to be impracticable, owing to the unstable nature of the ground along the route of the ditch and flume line. The alternative route then proposed was a tunnel directly from Coquitlam Lake to the North Arm of Burrard Inlet. It was not until 1901 that this route was examined with a view of proceeding with the work. It was found on examination that Trout Lake was nearer Coquitlam Lake than any point of the North Arm of Burrard Inlet, and added to the advantage of this shorter route was the very valuable storage of water which this lake would create, acting as a balancing reservoir and enabling much higher peaks of power to be attained than if the tunnel was built directly through to the North Arm of Burrard Inlet. This scheme of development was accordingly decided upon, but a great deal of opposition was met with at about this time in securing the necessary water records, causing several months' delay in starting work. As a result, an investigation was finally held at the Government Offices in Victoria, and the Government decided that an important undertaking of this description should not be blocked by the obstacles put forward. As soon as this matter was settled, construction work was proceeded with. The dense forest covering the site of the proposed works was cleared off, excavations were made for the power house, pipe lines and dam, and steam plants were installed for the construction of the tunnel. After the whole scheme had been formulated and laid out on the ground by the engineers, Hugh Cooper, of New York, was called upon to make an examination of the ground and proposed plan of development. He reported "that the provisions of nature here existing are extraordinarily designed for the creation of a successful water power, and the plans provided by the company's engineers suited the conditions." The whole work, with the exception of the tunnel, the construction of the steel pipes, and the clearing of some of the land was accomplished by day labor under the direct supervision of the company's engineers. Trout Lake is situated near the North Arm of Burrard Inlet, and is distant about 16 miles from Vancouver. It has an area of about 500 acres, with an altitude of 400 ft. above sea level, and is separated from Coquitlam Lake by a range of mountains having an altitude of from 3,000 to 4,000 ft.; the two nearest points of these lakes being distant 12,775 ft. Coquitlam Lake has an area of 2,300 acres and an altitude of 132 ft. above sea level. The drainage area of this lake is about 100 square miles and the annual precipitation about 150 inches.

The chief features in the development of this power scheme are as follows:—A dam at the outlet of Coquitlam Lake to raise its level and create storage; a tunnel connecting the two lakes; a concrete dam across the outlet of Trout Lake, which increases the storage capacity of Trout Lake; pipe lines connecting this concrete dam with the power house situated at sea level, and transmission lines extending from this point to Vancouver, New Westminster, Burnaby and Lulu Island.

The dam at the outlet of Coquitlam Lake is a rock-filled timber crib structure, raising the level of Coquitlam Lake 10 ft. and diverting its overflow through the tunnel. It has been made especially substantial to with-

stand the passage over it of large drift logs at flood water. Before deciding upon the location of the concrete dam at Trout Lake, a large amount of preliminary work had to be done in order to ascertain the nature and exact position of the underlying granite bed-rock, which was covered over with a strata of hard-pan of varying thicknesses. Ten shafts were sunk through this strata, varying from 20 to 54 ft. in depth, and connected with drifts running along the bed-rock. In this manner the most suitable location was selected and proved. The excavation was then carried down to the bed-rock for the entire length and width of the dam, requiring the removal of about 20,000 cubic yards of hard-pan and boulders. The dam has a maximum height of 54 ft. and a width at its base of 40 ft., its length on the crest being 361 ft. It is penetrated by ten 54-in. and two 24-in. pipes, all fitted with a special design of gates and screens on the up-stream face. The concrete work amounts to 10,000 cubic yards, and was completed within five months from the date of its commencement, Portland cement being used chiefly in its construction.

The pipe lines extend from the dam to the power house, a distance of 1,800 ft. At present there are laid three large pipes and one 24-in. pipe. The upper 800 ft. of each line is constructed of wooden stave pipes with diameters of 54 in., and the lower 1,000 ft. is of riveted steel construction, varying in diameter from 48 in. to 42 in. at the lower ends. The grading of the trench and the provision necessary for the support of the pipes was probably the most difficult engineering problem involved. Near the lower extremity of the line a vertical rock bluff, 70 ft. in height, was encountered, which made it necessary to carry the pipes on a temporary trestle, built to suit the vertical curves which it was decided to give the pipes at this point. After the pipes were completed, these trestles were replaced with concrete piers. The pipe lines throughout were built to curves and tangents, both vertically and horizontally, angles being considered objectionable. For this reason it has a pleasing appearance and at the same time a little greater efficiency.

The tunnel connects Coquitlam Lake with Trout Lake and has a capacity of about 500 cubic feet of water per second, as nearly as can be calculated. In alignment it is straight, but the gradient from one end to the other is not uniform, having a slight summit at the centre. This was made necessary for drainage purposes during the construction of the work, which was carried into the mountain from both ends. The summit is 22 ft. lower than the Coquitlam portal, and the tunnel throughout is below the hydraulic gradient. The tunnel passes under a mountain about 4,000 ft. in height, and has a length of 12,775 ft. and a width and height of 9 ft. In getting the alignment, the engineers made a triangulation survey over this mountain, but in determining the levels, it was thought advisable to carry the survey around, instead of over, the mountain. This made it necessary to run about 20 miles of levels to connect both ends. A notable feature in this work is the intake gate at the Coquitlam portal which controls the flow of water. This gate is located in the solid rock underground, and is operated from another short tunnel which is 18 feet above the main tunnel at this point. The contract for building the tunnel was awarded to Ironside, Rennie & Campbell, of Vancouver, who started the work Jan. 9, 1903, and carried it through to its completion on April 27, 1905, making an average advance of 15 ft. a day. When both ends met the closing error in alignment was found to be only 1/16th of an inch, and the error in the levels only 1 1/2 inches. Considering the dangerous nature of this work, the contractors and employees are to be congratulated.

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ed on the small number of accidents as well as the rapid prosecution of the excavation.

The power house is situated on the North Arm of Burrard Inlet at sea level, and is built of stone, with a concrete foundation. The only suitable site for this building was on the edge of a rock bluff, which made it necessary to excavate about 15,000 cubic yards of granite before starting the foundation of the building. The capacity of the power house is 12,000 h.p. in four units of 3,000 h.p. each. There are at present installed only three units, and the water is supplied under a static head of 400 ft. The arrangement of the water wheels and the generator for each unit is extremely simple, consisting of a hollow shaft, with the generator set in the centre and a Pelton water wheel at each end, the whole revolving on two ring oiling bearings, kept cool by a water jacket and also by a stream of water passing through the hollow space in the shaft. The generators are 3-phase, 60-cycle Westinghouse alternating current machines with revolving fields, and run at 200 revolutions per minute, the regulating being accomplished by governors operating deflecting needle nozzles, the needles being adjusted by hand for average load conditions.

The transformers are of the air-cooled type, placed in a separate concrete building, which also contains the high potential switches and appliances. The voltage here is stepped up to 20,000 and transmitted under this pressure to the sub-stations at Vancouver, Burnaby, New Westminster and Lulu Island. The transmission line has a length of about 16 miles to Vancouver, and consists of a double line of poles built in accordance with standard construction for high potential wires. It presents a notable feature in the crossing of Burrard Inlet near Barnet. The span here is 2,750 ft., and the current is transmitted through steel cables, which are suspended 150 ft. above sea level at their lowest points. On the southerly end of the span are two steel towers, each 140 ft. in height and set on top of a small knoll, bringing the top of the towers 300 ft. above sea level. There are some unique features in the anchoring and the insulating of these cables, but space does not permit of these details being given. Provision has been made in the head gates at the dam and the location of the power house and pipe lines for an ultimate development and utilization of 30,000 h.p. This large amount of power, if used continuously, would be somewhat in excess of the capacity of the tunnel, but as commercial peak loads are only of comparatively short duration, the total power is made attainable by means of the large balancing reservoir which nature has provided in the creation of Trout Lake.

The work of organizing the company and ascertaining the possibility of developing this water power, and afterwards the careful examination into the feasibility of the development proposed by the engineers, has been accomplished by J. Buntzen, as General Manager of the B. C. Electric Ry. Co., the parent company of the Vancouver Power Co., assisted by R. H. Sperling, advising electrical engineer, and to R. M. Horne-Payne, Chairman of the B. C. Electric Ry. Co., is due the credit for finally financing the scheme. The construction work has been performed under the supervision of W. Meredith, of San Francisco, Chief Engineer for the Company, and E. B. Hermon and H. M. Burwell, of Vancouver, engineers in charge of construction.

The name of Trout Lake has recently been changed to Lake Buntzen.

The new line of the Minneapolis, St. Paul and Sault Ste. Marie Ry., about completed between Thief River Falls, Minn., and Kenmare, N.D., has been named by W. R. Callaway, G.P.A., the Wheat Line of North Dakota.

American Street Railway Association.

This association held its 24th annual convention at Philadelphia, Pa., Sept. 25 to 30, W. C. Ely, of Buffalo, N.Y., President, in the chair. Apart from the discussion of a number of papers, the only important feature of the gathering was its re-organization as the American Street and Interurban Railway Association, and the election of W. C. Ely as President. In the course of his address the President gave a brief review of the advance of electric traction during the year, referring particularly to the growth of the interurban lines. With this growth, he pointed out the necessity of the companies owning the greater part, if not all, of their right-of-way. It was impossible to run cars at high speed along the highways, owing to the restrictions imposed by municipalities. Altogether the provision of a private right of way was most desirable, and this should be secured at the outset, of sufficient width to provide for a double track. In 1904, there were in the United States 993 electric lines, having a total of 30,187 miles of track, operating 75,904 cars and having a total capitalization of three and a quarter billions of dollars, while in Canada there were 42 roads with a total of 900 miles of track, operating 2,639 cars, and a total capitalization of \$69,500,000. The Association now has 206 members, an increase of 10 since 1904, and the cash balance on hand was \$6,732.20.

T. C. Pennington resigned the Secretaryship, after having acted in that capacity for 10 years, it having been decided to maintain headquarters in New York city, and that the Secretary should devote the whole of his time to the duties of the office. The annual banquet was held Sept. 29, at which G. T. Blackstock replied on behalf of "Our Canadian Brethren."

In connection with the central organization a number of sectional associations have been formed, the annual meetings of which were held at Philadelphia during the same period.

STREET RAILWAY ACCOUNTANTS' ASSOCIATION.

The ninth annual convention of this Association was held Sept. 28-30, W. G. Ross, Managing Director Montreal Street Ry., the President, occupying the chair. In his address he referred to the fact that the membership had increased from 25 at the inaugural meeting in 1897, to 150 at present. After referring to the important work done in formulating the "Standard Classification of Accounts" and "Standard Form of Report" and the indorsement of these standards by the National Association of Railroad Commissioners, Mr. Ross proceeded to outline some of the things that can now be taken up to advantage. "In connection with the various forms and records, one of the important matters still to be followed up and dealt with, is the taking up of these forms and records with the departments they affect, and as new associations are formed, such as the Mechanical and Electrical and Claim Agents, the committee of our Association appointed for this purpose should follow this matter up vigorously so as to endeavor to arrive at a standard set of forms that can as far as possible be used by all companies. Another question that should be given serious thought is the one of depreciation. This matter has been mentioned by previous presidents, especially by H. C. Mackay. Whether any conclusion can be arrived at or not as to the fixed amount necessary to provide for such a fund, it is difficult to say, owing to the various conditions existing with the different companies, but it is a question well worth our best thoughts, especially when we note the collapse of numerous companies within the last year or so. There is another matter which perhaps might well be taken up by the Committee on Standard Forms of Reports and Accounting, that is, enlarging to a con-

siderable extent the statistical information for our monthly and yearly reports. It seems to me that statistical information is of the very greatest importance to every road, not only on its own comparisons, but for comparisons with other companies."

The American Railway Mechanical and Electrical Association held its annual meeting at Philadelphia, Sept. 25 and 26. The membership roll includes 38 company members, 134 active members and 31 junior members, and the finances were reported to be in a satisfactory condition. During the year among the new members added were H. H. Boyd, Assistant Electrical Engineer, C.P.R., Winnipeg, to the active list; Ottawa Railway Co., Ottawa; and Toronto Ry. Co., Toronto, to the company list.

The American Association of Street Railway Claim Agents met Sept. 27, and discussed the question of Fakers, Malingerers and Ambulance Chasers." The Association was organized in 1904, with eight members, and now has a membership of about 60.

Grain Elevator Notes.

The farmer's elevator at La Riviere, Man., was burned out recently. There were about 8,000 bush. of grain in the elevator at the time.

An action has been entered by Philadelphia bankers to recover \$38,360 unpaid interest and sinking fund on the Great Northern elevator at Quebec.

A site has been secured at Vancouver, B.C., for the erection of a grain elevator there. It is proposed to erect an elevator of 150,000 bush. capacity as an experiment, and to have it ready by Dec. J. E. and E. C. Hall, of Brandon, Man., are the promoters of the enterprise.

The fitting up of the grain elevator at Prescott, Ont., for re-opening was completed at the end of Sept., and cargoes were received early in Oct. The elevator has a capacity of 1,000,000 bush., and has been closed for some years. It is being operated this season by the Montreal Transportation Co.

In connection with the movement of grain from the west for export, a daily newspaper points out it is expected to move 20,000,000 bush. to Fort William and Port Arthur, Ont., by Dec. 5, about which time navigation will close. The elevator capacity at these ports is about 17,000,000 bush.; the elevator capacity at lower lake ports is about 6,500,000 bush., and at Montreal there is accommodation for 2,000,000 bush. The elevators at Montreal it is calculated could load to ocean liners 7,000,000 bush. before Nov. 20, when that port closes. Canadian grain carrying vessels have an aggregate carrying capacity of 3,620,000 bush., or taking into account the time occupied in making the trip to Kingston and Prescott, they could move about 2,000,000 bush. every eight days. The object of the article is to show that the elevator accommodation at Canadian lower lake ports is not sufficient to move the grain as fast as it can be delivered.

SHIPPING MATTERS.

The Empire-Hosanna Collision.

A formal investigation was held at the Wreck Commissioner's Court, Montreal, Sept. 11 and 13, into circumstances attending the collision between the str. Empire (so called), and the tug Hosanna, in the ship channel, off Longue Pointe, Que., Sept. 5, whereby the latter was sunk. The court was presided over by Commander Spain, R.N., Wreck Commissioner, the assessors being Capt. A. Reid, Port Warden and Surveyor to Lloyd's Register, and W. Gauthier, President Montreal Pilots' Association. Judgment was given Oct. 11 by Commander Spain, the assessors con-



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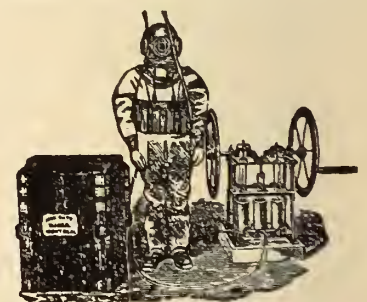
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curing. Following is the full text of the judgment: That the steamship Empire (so called) was not a licensed vessel inasmuch as she carried no proper certificate of registry as such. That this vessel appears to have been navigated throughout in a most haphazard manner and with total disregard to all rules and regulations. There were no proper appliances handy by which the man in the wheel house could communicate with the engine room. There were no certificated deck officers on board except Oliver Gillespie, who disclaimed all responsibility as master, and emphatically denied that he had chartered the vessel to L. J. A. Rosa, on the understanding that he (Gillespie) was to be master. On inspecting the charter party this statement was found to be absolutely incorrect, as one of the sections thereof distinctly states that the vessel was chartered on the condition that Captain O. Gillespie should retain command. In consequence of the steamship Empire (so called) not being kept on the south side of the channel, in rounding gas buoy 174M, which is on the north side, she came into collision and sank the tug Hosanna, which was proceeding up the river on her proper side of the channel; the tug being forced right over the said buoy, breaking the lantern of same. In view of all these facts, the Court finds that the officers and crew of the Hosanna are in no way to blame for the casualty. That the steamship Empire (so called), owned by Capt. O. Gillespie, was entirely to blame for the casualty which resulted in the sinking of the tug Hosanna. Taking into consideration also the wilful misstatements of the master, O. Gillespie, throughout the investigation, the Court considers that he is not a fit and proper person to hold a certificate, and his certificate of competency as master of a passenger steamer in the inland waters, No. 4813, is cancelled. The Court considers that further inquiry should be made into the running of this vessel under a wrong name—her proper name apparently being White Star not Empire—and with certificates of inspection that had expired for some time. In addition to the above facts, evidence was adduced that after the collision with the Hosanna, the Empire (so called) had carried excursionists without having a proper license, and without a regular passenger certificate.

Improvement of Fog Horns.

G. De W. Green, Toronto, writes as follows: "The numerous collisions which occur between vessels at sea during the prevalence of fog, and the narrow escapes which we occasionally hear of, but which are generally kept discreetly quiet by captains and vessel owners, would seem to show that the system of fog horns as at present in use is by no means perfect or satisfactory. One defect in them is that, although the sound of a fog horn may be heard by the crew of another ship, there is no means of telling in what direction the vessel on which it is sounded is going, or even where it is, because fog renders futile all reliable calculations as to distance and direction. And again, all or nearly all fog horns, I believe, whether on vessels or on dangerous points of land, are pitched on the same note, which is also conducive to errors, which in some cases end disastrously, as, for instance, when the captain of the steamer Montreal, lying in the Straits of Belle Isle in a fog some years ago, mistook the fog horn of the steamer Lake Erie for the fog horn on Cape Ball, and steaming north to avoid the supposed danger of the Newfoundland coast crashed on to Belle Isle, when the boat became a total wreck—fortunately, without loss of life.

"Now, why should not vessel fog horns be built with a musical scale of not less than five notes, and more if necessary. Taking the scale of C major, the notes would be C, D, E, F, G. To avoid confusion with lighthouse and shore fog horns, a vessel should never use less than two notes, and the order in which these notes are sounded should serve to show in what direction the ship is moving. As an example of what could be arranged:

The notes C, D, would mean 'Going due north.'

The notes D, C, would mean 'Going due south.'

The notes C, E, would mean 'Going due east.'

The notes E, C, would mean 'Going due west.'

The notes C, D, E, would mean 'Going due northeast.'

The notes C, E, G, would mean 'Going due northwest.'

The notes E, D, C, would mean 'Going due southeast.'

The notes G, E, C, would mean 'Going due southwest.'

"The intermediate points of the compass, such as NNE, SSW, etc., could all be indicated by adding another note or two to the scale. This is based on all vessels going north and east using the ascending scale, and those going south and west the descending scale.

"There would be a little difficulty, of course, as regarding sailing vessels that had no steam for sounding their fog horns, and would necessitate their carrying a supply of horns pitched on different keys to be used by the blower in their proper order. Such, in brief, are the suggestions I would make, and should these ideas or similar ones be utilized with the result of making sea-travel safer and freer from the risks which now attend it, these few lines will not have been written in vain."

Lake Freight Situation.

Our Winnipeg correspondent wrote on Oct. 16 as follows:—The old story of blockades at the eastern elevators which has been to the fore for the past few months is again an actuality, as Depot Harbor, Midland, Collingwood, Owen Sound, Meaford and Point Edward, Ont., are already blocked on account of lack of cars to keep them clear, and the loss of the Midland and Goderich elevators by fire is now being severely felt by the grain trade. This elevator blockade every fall is a matter that should be looked into by the Government, as the diversion of a large portion of the Canadian crop to Buffalo and other U.S. ports is a much more serious matter than appears on the surface. If this traffic were held to Eastern Canadian channels, it would give employment to thousands of Canadians and the spending of thousands of dollars for wages of railway, elevator and other employes, to say nothing of the loss to Canadian banks, through the business being handled by Buffalo and New York. Buffalo will this season secure at least 50% of the Canadian crop, as at the present writing alone, some 6,000,000 bushels of wheat have been contracted for by U.S. vessels, to move from Fort William to Buffalo, which is a mere drop in the bucket to what will move at that port later. Canadian vessels are now getting 3c. to Bay ports and the same rate is in effect via U.S. vessels to Buffalo, while the Canadian vessels are refusing to go to Buffalo at all at present. This is a serious matter, as the Canadian owners will find that with Georgian Bay elevators blocked, they will be forced to look for business to any port and by the time they start looking for Buffalo business, they will find that the U.S. lines have taken everything in sight. Grain rates for Nov. shipment are now quoted at 4c., Buffalo. Coal is still moving to Fort William in considerable quantities, almost entirely in U.S. bottoms.

Notices to Mariners.

The Department of Marine has issued the following:—

No. 83. Sept. 7.—Quebec—199. River St. Lawrence, Lake St. Peter, Louiseville ranges, foundation of front lighthouse placed.

No. 86. Sept. 15.—Nova Scotia—203. South coast, Sober Island to Ebor Secum, buoys established. Prince Edward Island—204. East coast, Murray Harbor, Beach point, storm signal station established.

No. 87. Sept. 18.—Quebec—205. River St. Lawrence, float placed off the east side of Ile Ste. Therese.

No. 88. Sept. 25.—Nova Scotia—206. East coast, Scattarie Island, north-east point, change in fog alarm. Hay Lake channel, Nine Mile Point, alteration in buoyage.

No. 89. Sept. 25.—British Columbia—207. Strait of Georgia, Sandheads at entrance to Fraser River, lightship established, bell buoy discontinued, light discontinued.

No. 90. Sept. 25.—Ontario—208. St. Joseph channel, lighthouse moved from North Sister rock to West Sister rock.

No. 91. Oct. 2.—Ontario—209. Lake Ontario, Toronto harbor, eastern entrance, storm signal. 210. Lake Erie, Pelee Island, storm signal. 211. Lake Huron, east side, Southampton, storm signal. 212. Lake Superior, Thunder Bay, Fort William, storm signal.

No. 92. Oct. 2.—New Brunswick—213. South Coast, Bay of Fundy, Beaver harbor, Dews head, change in character of light. 214. South coast, Bay of Fundy, Point Lepreau, storm signal. Nova Scotia—215. Cape Breton Island, east coast, Morien or Crew Bay, Port Morien, storm signal.

No. 93. Oct. 3.—Nova Scotia—216. South coast, Madame Isle, Petitdegat inlet, bell buoy established.

No. 93. Oct. 4.—Quebec—219. Gulf of St. Lawrence, Gaspé coast, storm signal stations.

No. 94. Oct. 5.—New Brunswick—222. Northumberland Strait, Shediac harbor, Zephyr rock, gas buoy placed for autumn.

The following has been issued by the U.S. Hydrographic Office:—

No. 39. Sept. 30.—St. Mary's River—1536.

The first of the two new transatlantic steamers for the C.P.R. is expected to be launched Nov. 11, and the second about a month later.

The Dominion cruiser Canada will be sent on another winter cruise to the West Indies for the purpose of training the crew in seamanship and gunnery.

The Allan-State Line has withdrawn its service between Glasgow and New York on account of the heavy charges for pier accommodation, and has replaced it with a Glasgow-Boston service.

A suggestion is made that Canada shall cancel the subsidy to the Canada Australian line of steamers, on the ground that the recent regulations regarding the valuation of imports by the Australian Commonwealth is a discrimination against Canadian trade. The subsidizing of a direct line to New Zealand is advocated instead.

The Allan Line has placed orders with British shipbuilders for two additional turbine steamers. They are to be longer than the Victorian and Virginian, and will have a speed of 18½ knots an hour, which is one knot an hour faster than the pioneer trans-Atlantic turbine steamers. They are expected to be ready for service in the spring of 1907 at the latest.

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ESTIMATES PROMPTLY FURNISHED.

The statement of receipts and expenditures for the year ended June 30, issued by the Finance Department at Ottawa, shows the expenditure on capital account for public works, railways and canals to have been \$9,840,028; and the expenditure on railway subsidies \$1,275,629, against \$5,832,953 and \$2,046,878, respectively, for the previous year.

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Name.	No.	Where and When Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Arthur Mac.	116,843	Owen Sound, Ont., 1904.	Screw. N.H.P.	70.0	15.4	6.0	68	53	Owen Sound, Ont.	M. McInnes, Meaford, Ont.
Ben Hur	116,730	St. John, N.B., 1903.	11	44.8	8.3	3.5	14	9	St. John, N.B.	H. J. Fleming, et al., St. John, N.B.
Charles F.	94,718	Port Stanley, Ont., 1905.	1	31.5	10.4	3.4	8	5	Port Stanley, Ont.	H. Taylor, Port Stanley, Ont.
Crawford	116,844	Wiarton, Ont., 1905.	31	86.0	15.9	6.5	50	37	Owen Sound, Ont.	The Crawford Tug Co., Ltd., Wiarton, Ont.
Geneva	116,966	Belfast, Me., 1904.	1	42.6	11.8	4.0	15	7	St. Andrews, N.B.	G. C. Pendleton, West Isles, N.B.
Glenellah	112,205	Dundee, Scotland, 1905.	142	250.0	43.2	23.5	2272	1454	Hamilton, Ont.	MacKay & Magee, Hamilton, Ont.
Hercule	116,607	Sorel, Que., 1904.	16	58.0	15.1	7.5	45	28	Montreal, Que.	J. H. Dansereaux, Vercheres, Que.
Irene	121,823	St. John, N.B., 1904.	2	37.9	9.5	3.5	10	7	St. John, N.B.	F. P. Starr, St. John, N.B.
John McRae	112,339	Meaford, Ont., 1905.	10	62.0	14.0	6.4	34	23	Collingwood, Ont.	J. McRae, Meaford, Ont.
Lady of the Isles	117,125	Kingston, Ont., 1901.	1	31.6	7.2	2.9	5	3	Kingston, Ont.	J. H. Davis, Kingston, Ont.
Ludlow	121,831	St. John, N.B., 1905.	33	114.0	34.4	11.7	534	363	St. John, N.B.	The City of St. John, N.B.
Mather	117,193	Toronto, Keewatin and Kenora, Ont., 1904.	32	87.5	19.0	10.5	145	98	Kenora, Ont.	Keewatin Lumbering and Mfg. Co., Keewatin, Ont.
Ona	121,708	Hamilton, Ont., 1887.	1	36.0	9.5	3.5	9	6	Toronto, Ont.	B. Yates, Penetang, Ont.
Tuttsy	111,885	Peterboro, Ont., 1905.	5	35.5	7.5	3.0	9	6	Peterboro, Ont.	H. Allen, Peterboro, Ont.
W. J. Martin	116,664	Midland, Ont., 1905.	15	68.7	15.4	10.0	86	42	Midland, Ont.	Chas. Martin, Midland, Ont.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM SEPT. 15 TO OCT. 15.

Name.	No.	Where and When Built.	Rig.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Abbie May	121,802	Shelburne, N.S., 1904.	Sloop	30.0	10.6	6.0	10	10	Yarmouth, N.S.	W. E. Atkinson, Cape Island, N.S.
Alice M. Atwood	121,801	Clark's Harbor, N.S., 1904	"	30.0	10.6	6.0	10	10	"	D. A. Atwood, Clark's Harbor, N.S.
Burque Brothers	111,897	Church Point, N.S., 1905.	"	33.0	12.2	5.1	10	10	Weymouth, N.S.	P. Burque, Church Point, N.S.
Catherine	111,898	Belliveau's Cove, N.S., 1905	"	33.0	12.6	5.4	11	11	"	M. Belliveau, Grosses Coques, N.S.
Dorothy	111,899	Meteghan River, N.S., 1905.	Schr.	62.0	19.4	6.6	49	49	"	J. H. Longmire, Bridgetown, N.S.
Fish Hawk	121,804	Cape Island, N.S., 1904.	Sloop	31.0	11.0	6.0	10	10	Yarmouth, N.S.	G. A. Surin, Clark's Harbor, N.S.
Florence	116,306	Rusticville, P.E.I., 1905.	Schr.	81.3	24.0	8.0	95	74	Charlottetown, P.E.I.	J. Gallant, Rusticville, P.E.I.
Hattie Quinlen	121,805	Clark's Harbor, N.S., 1904.	Sloop	30.0	10.6	6.0	10	10	Yarmouth, N.S.	W. L. Quinlen, Clark's Harbor, N.S.
Hootalinqua	111,960	Bennet Lake, B.C., 1905.	Barge	68.7	25.1	4.6	67	67	Victoria, B.C.	British Yukon Nav. Co., Vancouver, B.C.
Ile Marie	116,608	Vercheres, Que., 1900.	Scow	100.2	22.7	6.4	130	126	Montreal, Que.	J. H. Dansereau, Vercheres, Que.
Jean	116,916	Liverpool, N.S., 1905.	Schr.	118.0	28.9	11.0	215	190	Liverpool, N.S.	D. C. Mulhall, N.S.
Madeline	121,676	"	Sloop	25.0	9.0	4.0	7	7	Vancouver, B.C.	A. Austin, jr., Vancouver, B.C.
Mary J.	121,803	Cape Island, N.S., 1904.	"	31.0	10.6	6.0	10	10	Yarmouth, N.S.	M. Atwood, Cape Island, N.S.
May Queen	111,896	Church Point, N.S., 1905.	"	36.4	13.1	5.4	15	15	Weymouth, N.S.	M. C. Thibodeau et al., Church Point, N.S.
Minnie May	116,536	Lunenburg, N.S., 1905.	Schi.	49.3	16.1	7.2	29	29	Lunenburg, N.S.	C. Geldert, Lunenburg, N.S.
Montana	116,535	Lunenburg, N.S., 1905.	"	89.8	24.6	10.0	96	85	"	J. A. Silver, Lunenburg, N.S.
Nellie Myrtle	121,811	Parker's Cove, N.S., 1905	"	29.0	10.5	5.8	11	11	Digby, N.S.	F. P. Titus, Westport, N.S.
Princess Victoria	116,935	Masset, B.C., 1905.	"	55.0	16.0	6.0	20	17	Victoria, B.C.	D. Stanley, Massett, B.C.
St. Louis	121,661	Bay St. Paul, Que., 1905.	"	77.0	24.6	6.8	73	73	Quebec, Que.	L. Mallioux, et al., Bay St. Paul, Que.
Woodward, no. 1	111,960	New Westminster, B.C., 1905	Barge	65.0	23.0	4.5	62	62	N. Westminster, B.C.	D. Woodward, Woodward's Landing, B.C.

Maritime Provinces and Newfoundland.

The Department of Marine is arranging for the opening of a nautical school at North Sydney, N.S.

A. B. Caldwell, Lunenburg, N.S., has been appointed measuring surveyor of shipping at that port.

Reports state that 16 new iceboats are being built for service during the winter on the Cape route between New Brunswick and Prince Edward Island.

A press report states that the Dominion Coal Co. is arranging to have three more steamers built in England of the same type as the Christian Knudsen.

The contract for dredging at St. John, N.B., has been awarded to G. S. Mays, St. John. He has already a dredge at work, and is arranging with the city council in regard to wharves, etc.

The str. Fairmount, of Montreal, principally engaged in the Upper Lakes trade, has recently taken a cargo of iron ore from Pilley's Island, Nfld., to Washburn, Wis., on the south shore of Lake Superior.

The Neptune Whaling Co., which has its head offices at St. Johns, Nfld., and its station at Lark Harbor, Nfld., is seeking to raise additional capital. The unsubscribed capital at the date of the shareholder's meeting, Sept. 28, was \$30,000.

The str. Pro Patria, which was wrecked some time ago, is being rebuilt, and it is proposed to rename her the Canada. A company is being formed to put the steamer on a route between Halifax and Cape Breton ports. Mayor Lewis, of Louisburg, N.S., is active in promoting the new company.

The Halifax Dry Dock has been given the

contract to repair the damage to the str. Thrift, recently in collision with the str. Christian Knudsen. The owners of this steamer claim \$80,000 damages from the Thrift, which is being held by the sheriff at North Sydney, in default of furnishing bail.

The Alexander Dunbar & Sons Co., which has been incorporated under the New Brunswick Companies' Act, with a capital of \$75,000 and offices at Woodstock, N.B., is authorized among other business to engage in shipbuilding, and the construction of marine engines. Alex. Dunbar, sr. and jr., Andrew W. and H. Dunbar are the provisional directors.

The registration of shipping in Newfoundland, is directly under the British Board of Trade, and is governed by the Registrar-General of Shipping, in London, Eng. All copies of transactions in Newfoundland are forwarded to London and published in the official publications. An abstract of the information furnished to the Registrar-General is published annually in the Newfoundland Customs Returns.

Steamship Arcola Co., has been incorporated under the New Brunswick Companies' Act with a capital of \$94,950, to purchase the British str. Arcola, and to carry on a general navigation business. The offices of the company are at Rothesay, N.B., and the provisional directors are: R. P. W. and J. R. Thomson, A. Porter and R. T. Leavitt of Rothesay. The steamer purchased was formerly known as the Baristan, and will be utilized to replace the Battle liner Pharsalia.

In connection with the proposal to construct a new icebreaking steamer to be put on the winter route between Prince Edward Island and the mainland, the Department of

Marine brought out C. Duguid, of London, Eng., for consultation. Mr. Duguid has made an inspection of the route, and collected all the information available as to weather conditions, etc. We were informed Oct. 10, that the undertaking was not sufficiently advanced to state when a contract would be let or when the steamer would be ready for service.

The Department of Marine has under consideration tenders for the maintenance of a wrecking and salvage plant at Sydney, N.S., for use in the Maritime Provinces. The Government subsidy is \$10,000 a year, payable one-half on July 1 in each year, and the balance at the end of the calendar year; the contract to run for a period of five years, with right of renewal, but subject to cancellation on 30 days' notice by the Minister of Marine. The tenderers were required to specify the plant which would be provided, and the terms upon which any or all of it would be available for service to owners of wrecks or underwriters.

The Canada Atlantic and Plant Steamship Co.'s annual meeting was held in Halifax, N.S., Sept. 25. We have not received a copy of the annual report, but have been officially informed that it showed the company to be in a healthy condition, although passenger traffic in 1904 decreased owing to unfavorable weather conditions and counter attractions in the United States, which largely lessened the tourist travel. Following are the directors and officers for the current year: President, A. W. Perry; Vice President, McC. Grant; other directors, H. McInnes, W. Mitchell, H. G. and B. F. Perry; Secretary and Eastern Manager, H. L. Chipman; Auditor, R. C. Verner.

The Charlottetown Steam Navigation Co. has entered into a contract with the Swan, Hunter and Wigham, Richardson Co., Neptune



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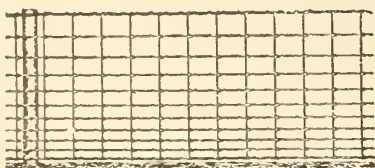
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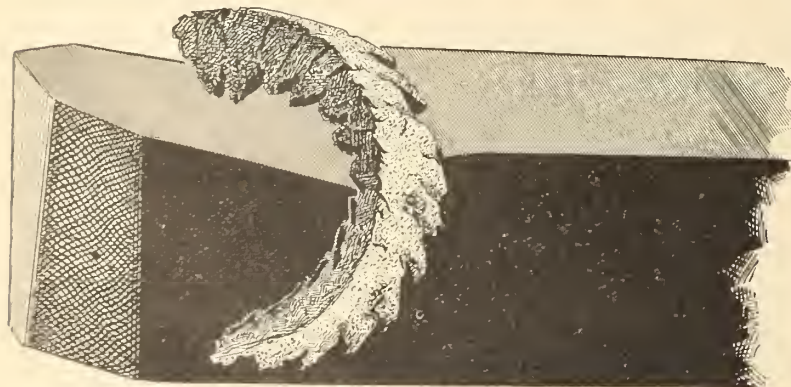
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Works, Newcastle-on-Tyne, Eng., for the construction of a steamer slightly larger, but in all other respects a duplicate of the Northumberland, built in the same yards. The dimensions of the new steamer will be:—length, 235 ft. between perpendiculars; breadth, 34 ft.; depth, 13 ft. 10 in. to main deck. She will be propelled by twin screws, driven by triple expansion, reciprocal engines. The boiler and engines are to be more powerful than those of the Northumberland, and are to give a speed of $16\frac{1}{2}$ knots an hour. The new steamer will be laid out internally similarly to the Northumberland, and her general fittings will be the same; electric light and all other of the latest appliances will be provided. The new steamer is expected to be delivered about the middle of May, 1906, when she will be put on the Summerside-Point du Chene route, and the Northumberland will be placed on the Pictou route.

Province of Quebec Shipping.

The Leyland Line str. *Virginian*, which went ashore on Crane Island, Sept. 1, was got off Oct. 6, and towed into Quebec.

The Dominion Government proposes to construct a marine railway to accommodate vessels up to 3,000 tons, at Sorel, Que.

P. A. Jodoin, Beloeil, Que., has been appointed Superintendent of the Chambly Canal, succeeding P. B. Benoit, who has been appointed purchasing agent for the Quebec canals.

The St. Lawrence Terminal Co. has been licensed to do business in the province of Quebec. Its chief place of business is at Montreal, and its principal agent is G. T. Smith.

The Shipping Federation of Canada has made a representation to the Dominion Government in favor of the construction of a larger dry dock, the present one at Levis being too small to accommodate the vessels now coming to Montreal.

An Ottawa press despatch states that the Dominion Government is being urged by deputations from the district to construct a new dry dock alongside the present one at Levis, Que., 1,000 ft. long, and considerably wider than the present one.

The Colonization Society of Lake St. John, proposes to provide some new steamers for Lake St. John, and the Metabchouan, Oshuapmouchouan, Mistassini, Peribonca and other rivers flowing into it. The type of vessel suggested is the flat-bottomed stern-wheel steamer.

The Allan Line str. *Victorian*, which went ashore at Cape St. Catharines, Que., Sept. 1, was towed to Quebec, where temporary repairs were made and she subsequently sailed for Great Britain, where permanent repairs will be made. The investigation into the stranding has been postponed.

The Minister of Marine, together with representatives of the Shipping Federation, has completed an inspection of the St. Lawrence between Rimouski and Montreal. The object was to see what had been done in the way of placing aids to navigation, and what further it was necessary to have done.

The str. *Bay State* was towing two barges in the river channel at Montreal, Sept. 29, and the str. *Universe* was also coming into port, when, in order to avoid a collision, the *Universe* altered her position and collided with two of the Harbor Commissioner's dredges, sinking one. An investigation has been held by Commander Spain, Wreck Commissioner, and judgment reserved.

The Supreme Court has rendered judgment in the Canada-Cape Breton collision case.

This collision occurred in June, 1904, and resulted in the sinking of the *Richelieu* and Ontario Navigation Co.'s str. *Canada*, with the loss of several lives. Actions were taken in the Exchequer Court by the owners of each steamer for damages and an investigation was held by Capt. Salmon, then Wreck Commissioner. The judgment of the Exchequer Court was to the effect that each vessel was responsible for the collision and directed each company to pay for the damages to the other's steamer. The Supreme Court, on the appeal of the Dominion Coal Co.—the owners of the Cape Breton—has reversed this decision, and finds that the str. *Canada* is to be blamed for the collision between the two vessels. A decree was ordered to be entered for the appellants in the action and in the cross action, with costs on both in both courts, against the respondents and the record to be remitted to the Exchequer Court, Quebec Admiralty District, for the assessment of damages to be paid to the owners of the Cape Breton steamship. The judgment of the Wreck Commissioner's Court was in accordance with this finding, but its order suspending the certificate of the captain of the *Canada* was nullified by the Minister of Marine. Capt. Salmon resigned his office at the time, alleging that an effort had been made by the Minister of Marine to influence his decision in the matter.

Ontario and the Great Lakes.

The Owen Sound Dredging Co. has received a contract for dredging at Penetanguishene harbor.

An order has been placed at Kingston for the construction of the steel framework of a passenger steamer for western waters.

The Dominion Government dredge *Nipissing* has been at work since Oct. 4, dredging in Hamilton Harbor, in connection with the improvements arranged for there.

The Rideau Navigation Co.'s str. *Rideau King* is to be replanked above the waterline, and to have a number of internal improvements made during the winter.

The repairs to the Dominion Government str. *Aberdeen* have been practically completed and she was expected to leave the Polson Iron Works yard, Toronto, by the end of Oct.

D. Brown of the Mare Island Navy yard, Cal., has been appointed to take charge of the office staff of the Collingwood Shipbuilding Co., relieving the Superintendent of the inside work.

The Great Lakes Dredging Co. has purchased a site at Island No. 2, Fort William, Ont., on which it is proposed to construct a dry dock, marine railway, foundry and machine shop.

Recent press reports stated that the C.P.R. had arranged to add several new steamers to its upper lakes fleet. We were advised, Oct. 5, that no action whatever had been taken in this direction.

The Dominion Government has decided, it is stated, to pay \$10,000 to the widow of Capt. Couillard of Montebello. Capt. Couillard was killed by an explosion of acetylene gas on the lighthouse tender *Scout* in April.

As a contribution to the controversy over the supply of Canadian vessels on the upper lake route, it has been pointed out that while five Canadian vessels were unable to obtain cargoes last week, the stock of grain at Port Arthur and Fort William increased only 188,000 bushels.—Toronto Globe, Oct. 4

The traffic through the Canadian and the U. S. canals at Sault Ste. Marie for Aug., totalled 6,327,595 tons against 5,644,772 tons for Aug., 1904. The tonnage passing through

the Canadian canal was 599,980 tons, making a total of 3,748,142 tons for the current season.

The St. Lawrence and Welland Canal systems as well as the Sault Ste. Marie lock were opened for Sunday traffic, Oct. 1, and will be kept open on Sundays as well as week days, until the close of navigation. The lights and other aids to navigation will be maintained at Fort William and other points up to Dec. 15.

The Exchequer Court has decided in favor of the Crown in the petition of right brought by the owners of the str. *Erin*. The steamer was damaged by colliding with the entrance piers at Farran's Point Canal, and it was alleged that there had been negligence on the part of the Crown's servants in constructing the pier so as to interfere with navigation.

The str. *Turbinia* made her last trip between Hamilton and Toronto, Oct. 14; and subsequently left Hamilton for the West Indian Islands, among which she will trade during the winter tourist season. The Turbine Steamship Co., owners of the *Turbinia*, are figuring on the cost of a light draught passenger steamer to run between Hamilton and Dundas, Ont.

The Dominion Government has decided to construct a temporary breakwater at Port Arthur, Ont., and as a result, the Canadian Northern Coal and Ore Dock Co. has decided to abandon the attempt to put a crib pier front to the dock it was erecting. A recent storm swept away the cribwork then completed, and it is now intended to put in a pile front filled in with stone.

The Minister of Railways and Canals has completed an inspection of the St. Lawrence and Welland canals. He also inspected the works in progress at Port Colborne, Ont. In connection with the Trent Valley canal project he visited Port Hope and Trenton and received deputations advocating their respective claims to have the Lake Ontario outlet of the canal located there. He was accompanied by M. J. Butler, Deputy Minister; and C. Schrieber, C.M.G., former Deputy Minister.

The Muskoka Lakes Navigation and Hotel Co. proposes to build a new steamer for next season's business. The new steamer will be constructed of steel, fitted with twin screws, driven by triple expansion engine at a speed of 16 miles an hour. The hull will have a length of 155 ft. and a breadth of 30 ft. She will be fitted with all modern improvements, and will have accommodation for 1,000 passengers. All the details of construction have not been settled and the contract has not been let.

The Mathews Steamship Co., has been incorporated under the Ontario Companies' Act, with a capital of \$250,000 and offices at Toronto, to carry on a general navigation business. The provisional directors are A. E. Mathews, R. L. Taylor, W. B. Raymond, F. Ford and B. Osler. The company proposes to engage in the general freight trade from Montreal to Fort William, and to carry grain and flour cargoes on the return journey. Orders have been placed in Great Britain for the construction of two steamers of full canal size to be delivered in May, 1906, and tenders are being asked for two other steamers.

The str. *Glenellah*, built at Dundee, Scotland, for the Union Steamboat Co., Hamilton, Ont., arrived at Toronto, Oct. 3, and subsequently left for Fort William. She brought out a cargo of 1,000 tons of fire brick, and occupied 14 days in crossing the ocean, during which she encountered heavy winds. She is of the full canal size, length 257 feet over all, breadth 43 ft.; depth 27 ft., and has a registered tonnage of 1,153. This steamer will be

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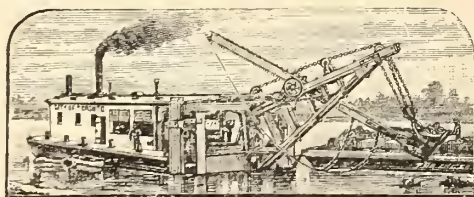
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used in the grain carrying business on the Upper Lakes, and has a carriage capacity of 120,000 bushels. The Glenellah is commanded by Capt. Geo. Mackey, of St. Catharines, and her chief engineer is John Sweatman.

The United States Government has approved of some amendments in the rules governing the navigation of St. Mary's River. The amendments provide that no vessel shall navigate the narrow parts of the river at a greater speed than nine miles an hour; vessels going in the same direction shall not pass or approach each other nearer than a quarter of a mile. Other amendments provide that three long blasts of the whistle, followed by two short blasts, when sounded from a patrolling vessel, will indicate that the vessel to which such signal has been given must stop until further orders from the patrol ship. No steamer stemming the current shall be allowed to tow any vessel or vessels unless such steamer has the power to move or stop the tow, at a rate of at least three miles an hour. Provision is also made that steamers shall not pass in the widest parts of the river more than two abreast.

Manitoba and the Northwest Territories.

The Dominion Government survey and patrol str. Arctic, which has been in Hudson Bay and adjacent waters for a couple of years, returned to Quebec Oct. 5.

The Transportation Commissioners held sittings at Edmonton, Alta., when evidence was given as to the navigability of the Saskatchewan River, and the improvements necessary to be made to ensure safety. At Regina, Sask., the question of the opening of regular navigation on Hudson Bay was discussed.

The Hudson's Bay Co.'s str. Stork, which left Charlton Island, Hudson Bay, Sept. 19, 1904, arrived in London, Eng., Oct. 4. In 1904, owing to a succession of gales the steamer was driven back to Charlton Island, and was kept there for ten months. The vessel had a cargo of £70,000 worth of furs on board.

An Order-in-Council has been passed to the effect that during the seasons of 1905 and 1906, the owners of steamboats on the Athabaska and Mackenzie Rivers be permitted to acquire permits without payment of the dues prescribed for cutting timber within the boundaries of Manitoba, the N. W. Territories, and the railway belt of British Columbia, and that any dues heretofore collected are to be remitted.

The Minister of Public Works has returned to Ottawa from a trip to Winnipeg and other points in the west. He stated that it was the intention of the Government to call for new tenders for the improvements to the St. Andrew's Rapids on the Red River, and added, it was fortunate the work was not proceeded with under the old plans, as since they were prepared it has been discovered that the flood tide on the river is much greater than was anticipated, this year it being seven feet greater than the average height. The new plans and specifications are in course of preparation.

B.C. and Pacific Coast Shipping.

The Mainland Transfer Co. has reduced its capital to \$70,000, divided into 700 shares of \$100 each.

The lower Yukon River str. Hannah has completed five trips this season, breaking all former records on the river.

A quarantine steamer, 100 ft. long, 20 ft. beam, and to have a speed of 12 knots an hour, is being built at Esquimalt, B.C., for the Dominion Government.

The Pacific Whaling Co. has been authorized to carry on business in British Col-

umbia. The company's capital is \$200,000; its B.C. office is at Victoria, and Capt. S. Balcom is its attorney.

The New England Fish Co. of Boston, Mass., and Vancouver, B.C., has placed an order in Philadelphia, Pa., for a steam trawler for its Pacific coast fishery. The new steamer is expected to be ready in April, 1906.

The C.P.R. has just had built at New Denver, B.C., a steamer to take the place of the Slocan, on the Slocan Lake. The machinery of the old steamer has been transferred to the new hull, which has also been named Slocan.

Col. Anderson, Chief Engineer of the Department of Marine, on his recent visit to the Pacific Coast, arranged for placing a lightship on the Sandheads at the mouth of the Fraser River, Oct. 15, and selected stations at which lighthouses are to be built, and lights or other buoys to be placed.

The sealing schooner Acapulco, which was seized at Victoria for non-payment of wages, has been sold for \$1,000. The vessel sailed from San Francisco, Cal., with temporary registration papers for a Mexican port, but went on a sealing expedition, which resulted in a number of complications at Victoria.

The keel of the new steamer for the C.P.R. has been laid at Esquimalt, B.C. The new steamer will be similar to the Princess Beatrice in general design, but her accommodation will be arranged more on the lines of the Princess Victoria. Her dimensions will be: length, 226 ft. between perpendiculars; breadth, 40 ft.; depth of hold, 25.6 ft. The steamer is intended for the Skagway route during the summer, and to run, when necessary, on the Victoria-Seattle run. The engines and boilers are being constructed in Scotland.

Among the Express Companies.

Winter rates to Alaska-Yukon points were put in force by the Alaska Pacific Ex. Co., Oct. 15.

The Dominion Ex. Co. has opened offices at Bankhead, Camrose, Alta.; Annis, B.C.; Woodland (formerly Reitz), Ont.

The Western Ex. Co. has opened offices at Bronson, Karlstad (formerly Clayton), Newfolden, Minn.; Lanona, Merricourt, Sawyer, N.D.

R. B. Thomas, for about eighteen years agent Canadian Ex. Co., Halifax, N.S., has decided to leave the service and enter the Methodist ministry.

The Dominion Ex. Co. announced Oct. 1, that rates quoted from Seattle, Wash., to Alaska-Yukon points would in future apply from Vancouver, B.C.

The Maritime Ex. Co. has issued a notification through its Secretary, R. L. Campbell, that its head office is located in the Dominion Atlantic Ry. station at Kentville, N.S.

The Canadian Ex. Co. is erecting a depot warehouse immediately west of the G.T.R. Stuart St. station, Hamilton, Ont. The building is being erected under the charge of — Mitchell, G.T.R. Master of Bridges and Buildings, Toronto.

The Western Ex. Co. is now bonded to the U. S. Government for the purpose of forwarding unapprised merchandise in bond from Emerson, Minn.; Portal, N.D., and Sault Ste Marie, Mich., to inland ports of entry in the U.S.

During Sept. there were received in Toronto, 1,373 tons of fruit from the Niagara district, of which 745 tons came by train and 628 tons by steamer. There were shipped out from Toronto 1,135 tons to various

points. This traffic is handled by the express companies.

The Western Ex. Co. announces that Portal, N.D., the present terminus of the Minneapolis, St. Paul and Sault Ste. Marie Ry., is an exclusive office, and in the interchange of business, separate graduate and minimum charge will be required on all shipments for that point, except special traffic, which will be charged according to classification rules.

The Canadian Ex. Co. operates over the G.T.R., the Intercolonial Ry., Prince Edward Island Ry., and some smaller lines. Its territory is operated in three divisions, with headquarters at Toronto, St. John and Montreal, respectively. The Western Division headquarters are at Toronto, J. H. Sparling being Superintendent, with the following route agents: E. Allen, Toronto; G. W. Hickey, Hamilton, Ont.; B. S. Murray, London, Ont.; and J. P. Hetherman, Stratford, Ont. The Atlantic Division headquarters are at St. John, N.B., and includes the Intercolonial Ry. and all other lines operated over in the Maritime Provinces, H. C. Creighton being Superintendent, and has as route agents: Le B. Coleman, St. John, N.B.; H. N. Lingley, Truro, N.S. The Central and Eastern Divisions are operated from Montreal by R. Murphy, Assistant Superintendent, and his route agents are: H. M. Gain, Richmond, Que.; F. Norman, Montreal, and G. H. Waterhouse, Kingston, Ont.

Telegraph and Cable Matters.

The G.N.W. Telegraph Co. has closed its offices at Beach Road, Delaware, Lambeth, London Junction, Minden, Ont., in addition to a number of offices at summer resorts.

The Commercial Cable Co. has completed arrangements to extend its Pacific cable system to China and Japan, and expects to have the new cable completed by April, 1906.

The G.N.W. Telegraph Co. has opened offices at Carpenter's, Winona, Pinkerton Station, Ont., and Kempt, Que., messages for the latter office, however, being subject to delay.

The Commercial Cable Co.'s new Atlantic cable from Canso, N.S., to Great Britain, was completed Oct. 6. The signalling speed is 15% greater than that of other Atlantic cables of the same length. The greatest depth of water in which the cable is laid is 15,000 ft.

The National Transcontinental Railway Commissioners have decided to utilize wireless telegraphy for the purpose of communication with the different survey camps. The proposal is to establish a station at New Liskard, Ont., another at Lake Abitibi, and to arrange stations east and west from this point every 40 or 50 miles.

J. Kent, Manager C.P.R. Telegraphs, has just completed an inspection of the lines to the Pacific coast, and has made arrangements for extensions and improvements. He was accompanied part of the way from Montreal by J. F. Richardson, Superintendent of the Eastern Division lines, and west of Winnipeg by W. J. Camp, Electrical Engineer.

The Premier of Newfoundland arranged for the flotation in London, Eng., of an issue of £390,500 of 3½% Government of Newfoundland inscribed stock at £96% for the purpose of paying the amount of the award of arbitration for the government system of telegraphs taken over from the Reid-Newfoundland Co., and to provide for further extensions of the telegraph system on the island, and a cable connection with Canada. A press telegram dated Sept. 30, stated that the loan had been oversubscribed, but a London, Eng., paper of Oct.

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JOSEPH DURAND, Secretary-Treasurer.

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D. L. WHITE, Vice-President.

J. W. BENSON, Sec'y-Treas.

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Chicago, Milwaukee and St. Paul Railway

The Overland Limited leaves Union Passenger Station, Chicago, 6.05 p. m. Arrives Omaha 7.35 a. m., and Denver 10.00 p. m. the next day, and San Francisco the third day in time for dinner.

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MICHIGAN POINTS.

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Trav. Pass. Agt.

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3 stated that the underwriters had been left with 30% of the issue on hand.

The annual meeting of the Great North-Western Telegraph Co. was held in Toronto, Sept. 27. Following are the officers and directors for the current year: President, H. P. Dwight, Toronto; Vice-President, A. Brown, Hamilton, Ont.; Vice-President and General Manager, I. McMichael, Toronto; other directors: H. N. Baird, J. Hedley, Hon. J. K. Kerr, W. C. Matthews, Toronto; Col. R. C. Clowry, J. Van Every, New York; Secretary-Treasurer, G. D. Perry, Toronto; Auditor, A. C. McConnell. The financial statement, which, however, is not published, presented by the president and directors, was considered very satisfactory, and a still further increase in business is looked for during the coming year, as the company has expended large sums of money in increasing their facilities, especially through the erection of new copper and large gauge wires.

General Telephone Matters.

The Bell Telephone Co. is replacing the iron wire lines between Stratford and Tavistock, Ont., with copper wire.

The Bell Telephone Co. is arranging for the establishment of a local and long distance telephone exchange in Rapid City, Man.

The Central Telephone Co. has arranged to extend its lines so as to give connection with Dalhousie, Campbellton and other points, N.B.

The Guelph, Ont., City Council passed a by-law ratifying a contract with the Bell Telephone Co. for a five years' exclusive franchise, Oct. 3.

The North Vancouver, B.C., Council has expressed its willingness to grant exemption from taxation and license fee for five years, for the immediate installation of a telephone system.

The Bell Telephone Co. has offered to construct a telephone connection between Kaleida and Manitou, if the local people will put in six miles of posts to connect with the line running from Darlingford, Man.

The Hamilton, Ont., Board of Trade's special committee reported Oct. 2, that while there were some complaints of poor telephone service in the city, the Bell Telephone Co. was improving the service as quickly as possible.

The Montreal City Council passed, Oct. 6, a by-law to compel the laying of all electrical wires in underground conduits. The city proposes to ask the Quebec Legislature, next session, for additional powers in respect to the ordering of the laying of wires underground.

The North American Telegraph Co. recently completed the installation of a new copper metallic telephone line from Madoc to Bancroft, Ont. In connection with the new line, offices have been opened at the following points: Eldorado, Bannockburn, Millbridge, Gilmour, St. Ola, Ormsby Junction, Coe Hill, Brinslow, Turfiff, L'Amable and Bancroft.

The American Telephone Co. is making a survey with a view of constructing a direct telephone line between Watertown, N.Y., and Kingston, Ont. The telephone connection between the two points is at present by way of Ogdensburg, N.Y., but it is hoped to obtain a line through Cape Vincent, and across Wolfe Island, where connection could be made with the Bell Telephone Co.'s line.

Since the close of the Dominion Parliament a large amount of information regarding telephones and the conditions of service in various parts of the world, has been received at Ottawa for the use of the Telephone Com-

mittee, which had not completed its investigation at the adjournment. This information has been tabulated and arranged, and will be laid before the Committee when the sittings are resumed in the spring.

A writer in a London, Eng., paper says Sir Wm. Mulock's endorsement of the Glasgow telephone system is no more than that of any eminent layman who might walk through a telephone exchange without in the least understanding what he saw. One cannot but admire the humorous touch of Sir Wm. Mulock in rebuking the National Telephone Co. for successfully conducting a competition which the Glasgow corporation provoked with the avowed aim of driving the company out of existence in Glasgow.

The New Brunswick Telephone Co. has completed the erection of a two storey brick building on Alma St., Moncton, to be used as an exchange. On the first floor there will be a toll office, long distance booths, city switch boards, and a work shop in the rear. On the second floor will be the manager's office, power room, distributing board and relay rack. The switch board is a central energy one, and all the other equipment is new. It is expected that the new office will be completed early in Nov.

PURCHASING AGENTS' GUIDE.

(Continued from third page of cover.)

Engineers, Consulting	H. W. Breithaupt.....Berlin, Ont.
Engineers' Supplies	Canadian Fairbanks Co.....Montreal. The Canadian Rubber Co. of Montreal. Williams & Wilson.....Montreal.
Engines, Automatic	Robb Engineering Co.....Amherst, N.S.
Engines, Corliss	Robb Engineering Co.....Amherst, N.S.
Engines, Gasoline	Goold, Shapley & Muir Co.....Brantford, Ont. Ontario Wind Engine and Pump Co.....Toronto.
Engines, Hoisting	M. Beatty & Sons.....Welland, Ont.
Engines, Stationary and Marine	Canada Foundry Co.....Toronto. H. W. Petrie.....Toronto. Polson Iron Works.....Toronto. Robb Engineering Co.....Amherst, N.S.
Engines, Steam	Erie Heating Co.....Chicago, Ill. Williams & Wilson.....Montreal.
Engraving	Rolph & Clark (Ltd.).....Toronto.
Engraving (Copper and Steelplate)	Rolph & Clark (Ltd.).....Toronto.
Express Office Signs	Acton Burrows Co.....Toronto.
Feedwater Heaters	Canadian Fairbanks Co.....Montreal. H. W. Petrie.....Toronto. Robb Engineering Co.....Amherst, N.S. Williams & Wilson.....Montreal.
Fencing	Canada Foundry Co.....Toronto. Canadian Steel and Wire Co.....Hamilton, Ont. McGregor, Banwell Fence Co.....Walkerville, Ont. Owen Sound Wire Fence Co.....Owen Sound, Ont. Page Wire Fence Co.....Walkerville, Ont.
Fire Brick	W. H. C. Mussen & Co.....Montreal.
Fire Escapes	The G. B. Meadows Wire, etc., Co.....Toronto.
Fire Insurance	Dale & Co.....Montreal.
Flags	The Hudson's Bay Co.....
Flour	The Hudson's Bay Co.....
Forgings	Canada Car Co.....Montreal. Crossen Car Mfg. Co.....Cobourg, Ont. General Railway Signal Co.....Buffalo, N.Y. Standard Steel Works.....Philadelphia, Pa.
Gasoline Engines	Canadian Fairbanks Co.....Montreal.
Gas Pipe (Cast Iron)	Gartshore-Thompson Pipe & F'dry Co., Hamilton.
Gates	Canada Foundry Co.....Toronto. McGregor, Banwell Fence Co.....Walkerville, Ont. Owen Sound Wire Fence Co.....Owen Sound, Ont. Page Wire Fence Co.....Walkerville, Ont.
Gears (Heavy)	W. Kennedy & Sons (Ltd.).....Owen Sound, Ont.
Generators	Charles F. Johnson.....Buffalo, N.Y.
Grain Elevators	John S. Metcalfe Co.....Chicago, Ill.
Groceries	The Hudson's Bay Company.....
Handcars	Crossen Car Mfg. Co.....Cobourg, Ont. W. H. C. Mussen & Co.....Montreal. Toronto Pressed Steel Co.....Toronto.
Hardware	The Hudson's Bay Company.....
Headlights	N. L. Piper Railway Supply Co.....Toronto.
Headlinings	Crossen Car Mfg. Co.....Cobourg, Ont.
Heaters	Erie Heating Co.....Chicago, Ill.
Heating for Power Plants	Erie Heating Co.....Chicago, Ill.
Hoppers, Car, Wet or Dry	Dunser Co.....Chicago, Ill.
Hose, Air Brake and Steam	The Canadian Rubber Co. of Montreal.
Hose, Fire	The Canadian Rubber Co. of Montreal.
Hose, Suction	The Canadian Rubber Co. of Montreal.
Hydrants	Kerr Engine Co.....Walkerville, Ont.
Illustrations	Acton Burrows Co.....Toronto.
Inspections	R. W. Hunt & Co.....Montreal. H. Jarvis & Co.....Chicago, Ill.
Instruments, Surveying and Engineering	Eugene Dietzgen Co.....New York. James Foster.....Toronto.
Insurance (Fire and Marine)	Dale & Co.....Montreal.
Interlocking and Signalling	General Railway Signal Co.....Buffalo, N.Y.
Interlocking Signals	Montreal Steel Works.....Montreal.
Iron Fencing	The G. B. Meadows Wire, etc., Co.....Toronto.
Iron and Steel Castings	American Brake Shoe & F'dry Co., Mahwah, N.J.
Iron, Pig	John McDougall & Co.....Montreal.
Iron Signs	Acton Burrows Co.....Toronto.
Japans	McCaskill, Dougall & Co.....Montreal.
Journal Bearings	Canada Foundry Co.....Toronto. Canadian Bronze Co.....Montreal. Crossen Car Mfg. Co.....Cobourg, Ont. Kerr Engine Co.....Walkerville, Ont. Jas. W. Pyke & Co.....Montreal. St. Thomas Brass Co.....St. Thomas, Ont.
Journal Boxes	N. J. Holden & Co.....Montreal.
Lager Beer, &c.	E. L. Drewry.....Winnipeg.
Lamps, Incandescent	Canadian Westinghouse Co.....Hamilton, Ont.
Lamps and Lanterns	The Hudson's Bay Company..... N. L. Piper Railway Supply Co.....Toronto.
Lathes	The John Bertram Sons Co.....Duquas, Ont. H. W. Petrie.....Toronto. Williams & Wilson.....Montreal.
Launches	Polson Iron Works.....Toronto.
Lights, Contractors' and Wrecking	F. H. Hopkins & Co.....Montreal. W. H. C. Mussen & Co.....Montreal.
Lithographing	Rolph & Clark (Ltd.).....Toronto.
Locomotive Boiler Washer, Automatic	Erie Heating Co.....Chicago, Ill.
Locomotive Driver Brake Shoe	American Brake Shoe & F'dry Co., Mahwah, N.J.
Locomotive Lugging and Covering	Canadian Fairbanks Co.....Montreal.

(Continued on page 559.)

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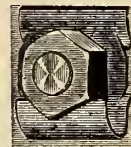
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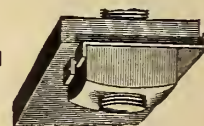
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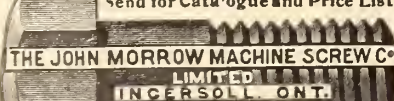
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PURCHASING AGENTS' GUIDE.

(Continued from page 557.)

Locomotives (Compressed Air)

Baldwin Locomotive Works.....Philadelphia, Pa.
 Canadian Locomotive Co.....Kingston, Ont.
 Locomotive and Machine Co. of Montreal.

Locomotives (Electric)

Baldwin Locomotive Works.....Philadelphia, Pa.
 Canada Foundry Co.....Toronto.
 Locomotive and Machine Co. of Montreal.

Locomotives (Logging)

Canadian Locomotive Co.....Kingston, Ont.
 Lima Locomotive and Machine Co.....Lima, Ohio.

Locomotives (Rack)

Baldwin Locomotive Works.....Philadelphia, Pa.
 Canadian Locomotive Co.....Kingston, Ont.
 Locomotive and Machine Co. of Montreal.

Locomotives (Steam)

Baldwin Locomotive Works.....Philadelphia, Pa.
 Canada Foundry Co.....Toronto.
 Canadian Locomotive Co.....Kingston, Ont.
 F. H. Hopkins & Co.....Montreal.
 Charles F. Johnson.....Buffalo, N.Y.
 The W. H. Kelson Co.....Montreal.
 Lima Locomotive and Machine Co.....Lima, Ohio.
 Locomotive and Machine Co. of Montreal.

Locomotive Stack Netting

The G. B. Meadows Wire, etc., Co.....Toronto.

Machine Tools

W. Abbott.....Montreal.
 Canadian Fairbanks Co.....Montreal.
 H. W. Petrie.....Toronto.
 Williams & Wilson.....Montreal.

Machine Screws, Set Cap and Planer

John Morrow Machine Screw Co.....Ingersoll.

Machinery, Marine

Sheriffs Mfg. Co.....Milwaukee, Wis.

Machinery Repairs, Marine

Sheriffs Mfg. Co.....Milwaukee, Wis.

Manganese Steel Castings

Montreal Steel Works.....Montreal.

Manhole Frames and Covers

American Brake Shoe & F'dry Co.....Mahwah, N.J.

Maps

Rolph & Clark (Ltd.).....Toronto.

Marine Insurance

Dale & Co.....Montreal.

Mats and Matting

The Canadian Rubber Co. of Montreal.

Millpost Numbers

Acton Burrows Co.....Toronto.

Milling Cutters

W. Abbott.....Montreal.
 Williams & Wilson.....Montreal.

Milling Machines

The John Bertram Sons Co.....Dundas, Ont.
 H. W. Petrie.....Toronto.

Mills, Boring and Turning

The John Bertram Sons Co.....Dundas, Ont.
 H. W. Petrie.....Toronto.

Mill Tools and Supplies

J. A. Dawson & Co.....Montreal.

Motors

Charles F. Johnson.....Buffalo, N.Y.

Nickel

The Orford Copper Co.....New York.

Nickel for Nickel Steel

The Orford Copper Co.....New York.

Numbers

Acton Burrows Co.....Toronto.

Nuts, Cold Pressed

John Morrow Machine Screw Co.....Ingersoll.

Nuts, Square and Hexagon

Canada Foundry Co.....Toronto.
 Montreal Rolling Mills Co.....Montreal.
 Toronto Bolt and Forging Co.....Toronto.

Oakum

The Hudson's Bay Company.....

Office Desks

Canadian Office & School Furniture Co., Preston, Ont.

Office Fittings

Canadian Office & School Furniture Co., Preston, Ont.

Office Railings

The G. B. Meadows Wire, etc., Co.....Toronto.

Office Signs

Acton Burrows Co.....Toronto.

Oils

Galena Signal Oil Co., Franklin, Pa., and Toronto.

Packing

The N. L. Piper Railway Supply Co.....Toronto.
 Williams & Wilson.....Montreal.

Packing, High Pressure Sheet

The Canadian Rubber Co. of Montreal.

Packing, Piston

The Canadian Rubber Co. of Montreal.

Paints, Acid Proof and Anti-rust

American Asphaltum & Rubber Co.....Chicago, Ill.

Paints, Asphaltum

American Asphaltum & Rubber Co.....Chicago, Ill.

Paints, Bridge

American Asphaltum & Rubber Co.....Chicago, Ill.

Paints, Locomotive Front end

American Asphaltum & Rubber Co.....Chicago, Ill.

Paints, Mineral Rubber

American Asphaltum & Rubber Co.....Chicago, Ill.

Paints, Structural Iron

American Asphaltum & Rubber Co.....Chicago, Ill.

Pinch Bars

The N. L. Piper Railway Supply Co.....Toronto.

Pipe

Erie Heating Co.....Chicago, Ill.

Pipe and Pipe Coverings

W. C. Baker.....New York.

Pipe Covering

Canadian Fairbanks Co.....Montreal.
 Mica Boiler Covering Co.....Montreal.

Planers

The John Bertram Sons Co.....Dundas, Ont.
 H. W. Petrie.....Toronto.

Ploughs, Contractors'

W. H. C. Mussen & Co.....Montreal.
 Toronto Pressed Steel Co.....Toronto.

Pneumatic Tools

N. J. Holden & Co.....Montreal.

Porter

E. L. Drewry.....Winnipeg.

Portable Boilers

Babcock & Wilcox (Ltd.).....Montreal.
 Canada Foundry Co.....Toronto.
 Robb Engineering Co.....Amherst, N.S.

Portland Cement

Thorn Cement Co.....Buffalo, N.Y.

Power Plants, Contractors'

Erie Heating Co.....Chicago, Ill.

Printing

The Hunter, Rose Co.....Toronto.
 The Mail Job Printing Company.....Toronto.

Propeller Wheels

W. Kennedy & Sons (Ltd.).....Owen Sound, Ont.
 Sheriffs Manufacturing Co.....Milwaukee, Wis.

Pumps

Canadian Fairbanks Co.....Montreal.
 Canada Foundry Co.....Toronto.
 Erie Heating Co.....Chicago, Ill.
 Gould, Shapley & Muir Co.....Brantford, Ont.

Pumps (Centrifugal)

M. Beatty & Sons.....Welland, Ont.

Punches

F. J. Myers Mfg. Co.....Hamilton, Ohio.

Punching and Shearing Machines

The John Bertram Sons Co.....Dundas, Ont.

Rail Benders, Roller

Montreal Steel Works.....Montreal.

Rails (new)

Drummond, McCall & Co.....Montreal.

Rails (for relaying)

F. H. Hopkins & Co.....Montreal.
 J. J. Gartshore.....Toronto.
 Charles F. Johnson.....Buffalo, N.Y.
 T. A. Morrison & Co.....Montreal.
 W. H. C. Mussen & Co.....Montreal.
 Jas. W. Pyke & Co.....Montreal.

Railway Interlocking

General Railway Signal Co.....Buffalo, N.Y.

Rail Joints

N. J. Holden & Co.....Montreal.

Railway Pile Drivers

W. H. C. Mussen & Co.....Montreal.

Railway Signalling

General Railway Signal Co.....Buffalo, N.Y.

Railway Supplies

J. A. Dawson & Co.....Montreal.
 Canadian Fairbanks Co.....Montreal.
 The W. H. Kelson Co.....Montreal.
 The N. L. Piper Railway Supply Co.....Toronto.

Reamers

W. Abbott.....Montreal.

Refrigerators

Geo. R. Prowse.....Montreal.

Rivets, Boiler, Bridge and Structural

Canada Foundry Co.....Toronto.
 Montreal Rolling Mills Co.....Montreal.
 Toronto Bolt and Forging Co.....Toronto.

Rolled Wheels

Standard Steel Works.....Philadelphia, Pa.

Rolls, Plate Bending

The John Bertram Sons Co.....Dundas, Ont.

Roof Trusses

Canada Foundry Co.....Toronto.
 Canadian Bridge Co.....Walkerville, Ont.
 Dominion Bridge Co.....Montreal.

Roofing Pitch

American Asphaltum & Rubber Co.....Chicago, Ill.

Roofing, Ready

American Asphaltum & Rubber Co.....Chicago, Ill.

Roofs, Car

American Asphaltum & Rubber Co.....Chicago, Ill.

Rope

The Hudson's Bay Co.....

Rotary Snow Ploughs

Crossen Car Mfg. Co.....Cobourg, Ont.

Rubber Tiling, Interlocking

The Canadian Rubber Co. of Montreal.

Saw Steel

Montreal Steel Works.....Montreal.

Scrapers (Wheel and Drag)

W. H. C. Mussen & Co.....Montreal.
 Toronto Pressed Steel Co.....Toronto.

Screws, Coach and Lag

Montreal Rolling Mills Co.....Montreal.
 Toronto Bolt and Forging Co.....Toronto.

Semaphore Arms

Acton Burrows Co.....Toronto.

Semaphores

The N. L. Piper Railway Supply Co.....Toronto.

Sewer Pipe (Cast Iron)

Gartshore-Thompson Pipe & F'dry Co.....Hamilton.

Shaking Grates

Babcock & Wilcox (Ltd.).....Montreal.

Shaping Machines

The John Bertram Sons Co.....Dundas, Ont.

Ship Lamps

The N. L. Piper Railway Supply Co.....Toronto.

Ships

Polson Iron Works.....Toronto.

Shovels

F. H. Hopkins & Co.....Montreal.
 The Hudson's Bay Co.....

Side Bearings

Simplex Railway Appliance Co.....Montreal.

Signal House Numbers

Acton Burrows Co.....Toronto.

Signals

General Railway Signal Co.....Buffalo, N.Y.
 N. L. Piper Railway Supply Co.....Toronto.

Signs

Acton Burrows Co.....Toronto.

Stack Adjusters

Chicago Railway Equipment Co.....Chicago, Ill.

Slotting Machines

The John Bertram Sons Co.....Dundas, Ont.

Smoke Jacks

Paul Dickinson.....Chicago, Ill.

Snow Ploughs

Crossen Mfg. Co.....Cobourg, Ont.
 Charles F. Johnson.....Buffalo, N.Y.
 Rhodes, Curry & Co.....Amherst, N.S.

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Montreal Steel Works.....Montreal.

Spikes, Railway, Ship or Pressed

Montreal Rolling Mills Co.....Montreal.
 Toronto Bolt and Forging Co.....Toronto.

Springs

Montreal Steel Works.....Montreal.
 Standard Steel Works.....Philadelphia, Pa.

Station and Tower Heaters

W. C. Baker.....New York.

Stationery

Rolph & Clark (Ltd.).....Toronto.

Station Name Signs

Acton Burrows Co.....Toronto.

Steam Attachments for Car Heating

W. C. Baker.....New York.

Steam Couplers

Safety Car Heating and Lighting Co.....New York.

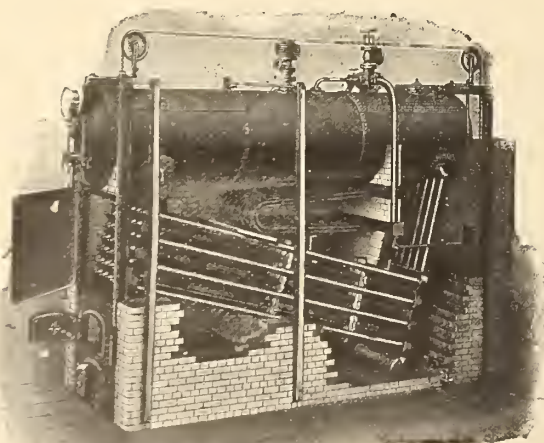
Steam Hammers

The John Bertram Sons Co.....Dundas, Ont.

Steam Shovels

M. Beatty & Sons.....Welland, Ont.
 F. H. Hopkins & Co.....Montreal.
 Charles F. Johnson.....Buffalo, N.Y.
 W. H. C. Mussen & Co.....Montreal.

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Steamships Polson Iron Works. Toronto.	Tires Standard Steel Works. Philadelphia, Pa.	Waste N. L. Piper Railway Supply Co. Toronto.
Steamship Signs Acton Burrows Co. Toronto	Tool Steel W. Jessop & Sons. Sheffield, Eng. Montreal Steel Works. Montreal.	Water Filters Geo. R. Prowse. Montreal.
Steam Steering Engines for Tugs Sheriffs Mfg. Co. Milwaukee, Wis.	Towers Goold, Shapley & Muir Co. Brantford, Ont.	Water Pipe (Cast Iron) Gartshore-Thompson Pipe & F'dry Co. Hamilton.
Steel W. Abbott. Montreal. F. H. Hopkins & Co. Montreal. Wm. Jessop & Sons. Sheffield, Eng. Williams & Wilson. Montreal.	Track Jacks Canadian Fairbanks Co. Montreal. F. H. Hopkins & Co. Montreal. Montreal Steel Works. Montreal. W. H. C. Mussen & Co. Montreal. A. O. Norton. Coaticook, Que.	Water Softeners Babcock & Wilcox (Ltd.). Montreal.
Steel Buildings Canada Foundry Co. Toronto. Canadian Bridge Co. Walkerville, Ont. Dominion Bridge Co. Montreal.	Tracklaying Lorries Crossen Car Mfg. Co. Cobourg, Ont.	Wheelbarrows F. H. Hopkins & Co. Montreal. Toronto Pressed Steel Co. Toronto.
Steel for Springs James Hutton & Co. Montreal.	Tracklaying Machinery D. F. Holman Ry. Tracklayer Co. Chicago, Ill.	Wheels, Car John McDougall & Co. Montreal. Jas. W. Pyke & Co. Montreal. Rhodes, Curry & Co. Amherst, N.S. Standard Steel Works. Philadelphia, Pa.
Steel Plate Jas. W. Pyke & Co. Montreal.	Track Tools N. J. Holden & Co. Montreal. F. H. Hopkins & Co. Montreal. Montreal Steel Works. Montreal. W. H. C. Mussen & Co. Montreal.	Wheels, Locomotive John McDougall & Co. Montreal.
Steel, Nickel for Nickel The Orford Copper Co. New York.	Tramway Equipment J. J. Gartshore. Toronto.	Wheels, rolled, solid forged Standard Steel Works. Philadelphia, Pa.
Steel Rolling Doors W. H. C. Mussen & Co. Montreal.	Trucks (Electric Car) Baldwin Locomotive Works. Philadelphia, Pa. Canada Foundry Co. Toronto. Charles F. Johnson. Buffalo, N.Y. Montreal Steel Works. Montreal.	Wheels, steel tired Standard Steel Works. Philadelphia, Pa.
Steel Tyres James Hutton & Co. Montreal. Jas. W. Pyke & Co. Montreal.	Turbine Waterwheels W. Kennedy & Sons (Ltd.). Owen Sound, Ont.	Windmills Canadian Fairbanks Co. Montreal. Ontario Wind Engine and Pump Co. Toronto.
Stokers, Mechanical Babcock & Wilcox (Ltd.). Montreal.	Turnbuckles Montreal Steel Works. Montreal.	Wire and Wire Rope Dominion Wire Rope Co. Montreal. The B. Greening Co. Hamilton, Ont. W. H. C. Mussen & Co. Montreal. The Wire and Cable Co. Montreal.
Structural Metal Work Canada Foundry Co. Toronto. Canadian Bridge Co. Walkerville, Ont. Dominion Bridge Co. Montreal. Locomotive and Machine Co. of Montreal. Jas. W. Pyke & Co. Montreal.	Turntables Canada Foundry Co. Toronto. Canadian Bridge Co. Walkerville, Ont. Dominion Bridge Co. Montreal. Charles F. Johnson. Buffalo, N.Y.	Wire Cloth The B. Greening Co. Hamilton, Ont. F. J. Myers Mfg. Co. Hamilton, Ohio.
Superheaters Babcock & Wilcox (Ltd.). Montreal.	Underwriters Dale & Co. Montreal.	Wire, Copper E. F. Phillips Electrical Works, Ltd. Montreal. The Wire and Cable Co. Montreal.
Switches Montreal Steel Works. Montreal.	Valves, Brass Gate Kerr Engine Co. Walkerville, Ont.	Wire, Electric Canadian General Electric Co. Toronto. E. F. Phillips Electrical Works, Ltd. Montreal. The Wire and Cable Co. Montreal.
Switch Lamps The N. L. Piper Railway Supply Co. Toronto.	Valves, Brass Globe Kerr Engine Co. Walkerville Ont.	Wire, Insulated Copper Canadian General Electric Co. Toronto. E. F. Phillips Electrical Works, Ltd. Montreal. The Wire and Cable Co. Montreal.
Switch Ropes The B. Greening Co. Hamilton, Ont.	Valves, Iron and Brass Canada Foundry Co. Toronto. Canadian Fairbanks Co. Montreal.	Wire Lockers (Employees) The G. B. Meadows Wire, etc., Co. Toronto.
Switch Targets Acton Burrows Co. Toronto.	Valves, Iron Gate Kerr Engine Co. Walkerville, Ont.	Wire, Telegraph and Telephone E. F. Phillips Electrical Works, Ltd. Montreal. The Wire and Cable Co. Montreal.
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Telegraph and Telephone Office Signs Acton Burrows Co. Toronto.	Varnishes McCaskill, Dougall & Co. Montreal.	Woodworking Machinery H. W. Petrie. Toronto.
Tests R. W. Hunt & Co. Montreal. H. Jarvis & Co. Chicago, Ill.	Ventilators Paul Dickinson. Chicago, Ill.	Wrecking Cranes W. H. C. Mussen & Co. Toronto.
Ticket Punches F. J. Myers Mfg. Co. Hamilton, Ohio.	Vessels Polson Iron Works. Toronto.	Wrought Steel Piping Canada Foundry Co. Toronto.
Ticket Wickets The G. B. Meadows Wire, etc., Co. Toronto.		Yachts Polson Iron Works. Toronto.
Tie Plates Montreal Rolling Mills Co. Montreal.		



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Canadian Westinghouse Co., Hamilton, Ont.

Air Compressors

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Ales

E. L. Drewry, Winnipeg.

Angle Bars

Montreal Rolling Mills Co., Montreal.

Asphalt, Pure

American Asphaltum & Ruhher Co., Chicago.

Axe Steel

Montreal Steel Works, Montreal.

Axles

James Hutton & Co., Montreal.
Jas. W. Pyke & Co., Montreal.
Rhodes, Curry & Co., Amherst, N.S.

Babbitt

Williams & Wilson, Montreal.

Bearings, Side

Chicago Railway Equipment Co., Chicago, Ill.

Beltting, Rubber

The Canadian Rubber Co. of Montreal.

Blankets and Bedding

The Hudson's Bay Co.,

Block Signals

General Railway Signal Co., Buffalo, N.Y.

Boller Compound

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Boller Covering

Mica Boiler Covering Co., Montreal.

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Canada Foundry Co., Toronto.
Hall Engineering Works, Montreal.
Polson Iron Works, Toronto.
Robb Engineering Co., Amherst, N.S.
Williams & Wilson, Montreal.

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Boilers, Portable

Canada Foundry Co., Toronto.
H. W. Petrie, Toronto.
Robb Engineering Co., Amherst, N.S.

Boilers, Stationary and Marine

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Canada Foundry Co., Toronto.
H. W. Petrie, Toronto.
Robb Engineering Co., Amherst, N.S.

Boilers, Steam

Babcock & Wilcox (Ltd.), Montreal.
Erie Heating Co., Chicago, Ill.
H. W. Petrie, Toronto.

Boilers, Water Tube

Babcock & Wilcox (Ltd.), Montreal.
Erie Heating Co., Chicago, Ill.

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Jas. W. Pyke & Co., Montreal.

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Montreal Rolling Mills Co., Montreal.
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Bolts, Track

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W. Kennedy & Sons, Ltd., Owen Sound, Ont.
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Rhodes, Curry & Co., Amherst, N.S.

Cast-Steel Hammers

American Brake Shoe & F'dry Co., Mahwah, N.J.

Cast-Steel Track Tools

American Brake Shoe & F'dry Co., Mahwah, N.J.

Cast-Steel Wrenches

American Brake Shoe & F'dry Co., Mahwah, N.J.

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Thorn Cement Co., Buffalo, N.Y.

Cement Machinery

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Contractors

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Charles F. Johnson, Buffalo, N.Y.

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Cross Arm Braces

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Toronto Bolt and Forging Co., Toronto.

Crossing Gates

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The N. L. Piper Railway Supply Co., Toronto.

Crowbars

Toronto Bolt and Forging Co., Toronto.

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Gartshore-Thompson Pipe & F'dry Co., Hamilton.

Cuts

Acton Burrows Co., Toronto.

Derriek Ropes

Dominion Wire Rope Co., Montreal.
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Derricks

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American Brake Shoe & F'dry Co., Mahwah, N.J.

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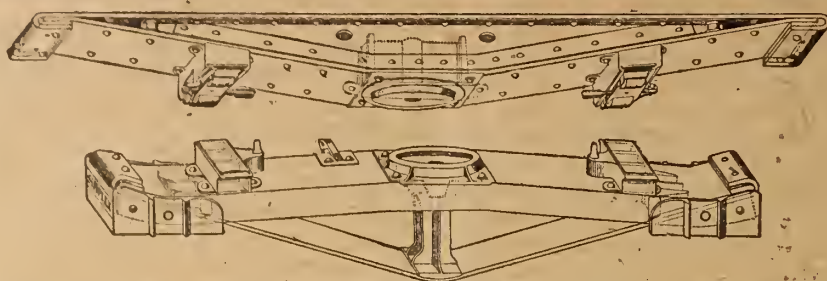
J. A. Dawson & Co., Montreal.

Enameled Iron Signs

Acton Burrows Co., Toronto.

(Continued on page 557.)

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BRAKE BEAMS



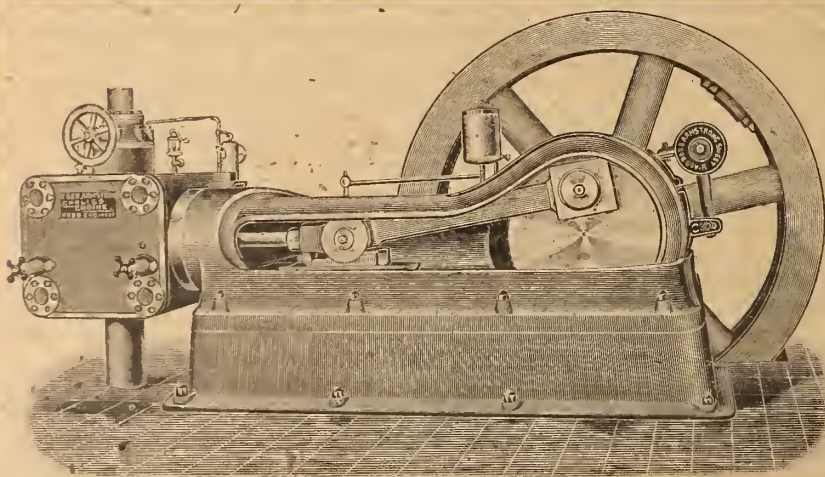
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Atlantic, Quebec and Western Ry.—Some track has been laid on the line constructed from the Atlantic and Lake Superior Ry. at Paspébiac, Que., towards Gaspé, and it is hoped to have the first 15 miles completed this year. (Sept., pg. 405).

Bella Coola to Telkwa River.—Application will be made next session of the British Columbia Legislature for an act incorporating a company to construct a railway from the mouth of Bella Coola River, at the head of Burke Channel, following the Bella Coola River for 30 miles, thence north-easterly to Fraser Lake, thence eastward to Fort George on Fraser River, and westerly along the south shore of Fraser Lake to the Bulkley Valley, at the mouth of the Telkwa River, with branch lines. A. P. Luxton, solicitor, Victoria, is acting for the applicants.

Brandon, Saskatchewan and Hudson's Bay Ry.—According to press reports from Winnipeg, the Great Northern Ry., U.S., has secured the charter to construct this railway. Further reports state that L. Hill, 1st Vice-President Great Northern Ry., U.S., crossed into Manitoba from St. John, N.D., recently, in an automobile, and went over the proposed route to Brandon, Man. He also visited Portage la Prairie, and returned into the U.S. by way of Gretna.

The company was incorporated by the Dominion Parliament in 1903, the provisional directors named in the act being M. S. and A. C. Fraser, J. D. MacGregor, K. Campbell, P. B. H. Ramsay, J. A. Osborne, C. Whitehead, T. C. Norris, of Brandon; C. A. Young, and J. W. Bettes, of Winnipeg. The company was authorized to construct a railway from a point on the International boundary between ranges 23 and 25 west of the principal meridian north-easterly to Brandon, thence to tp. 29, where it connects with the second meridian west, thence through ranges one to six west of the second meridian, to tp. 48, thence in a northerly direction to Pas Mission, Sask.

Location plans have been approved by the Board of Railway Commissioners for the construction of a line from sec. 1, tp. 7, range 20, west of the first principal meridian, to sec. 17, tp. 9, range 19, w.p.m. This represents a line from a point about four miles east of Souris, Man., north-easterly to a point north of the Brandon Hills.

The surveys have all been completed and the line is under construction. It starts at

Brandon and runs south-easterly through Carrot, Minto and Boissevain, Man., connecting with the Great Northern Ry., U.S., at range 17 on the International boundary. It is expected to keep one or two steam shovels working all winter at the crossing of the Souris River, where there is a good deal of heavy work. This portion of the line will be about 70 miles long, and is expected to be completed early in the summer of 1906. P. E. Thain is Chief Engineer.

The officers and directors are: President, K. Campbell, Brandon; Vice-President, J. Fisher, K.C., Winnipeg; Treasurer, A. C.



S. N. PARENT, K.C.

Chairman National Transcontinental Railway Commission.

Fraser, Brandon; other directors: M. S. Fraser, J. D. McGregor, P. H. B. Ramsay, Brandon; T. C. Norris, Griswold, Man.; A. C. Ewart, Winnipeg.

Copper River to Telkwa River.—Application will be made next session of the British Columbia Legislature for an act incorporating a company with this title to construct a line from Copper River on the Skeena River, B.C., to Telkwa River, Bulkley River, B.C., with power to operate ferries and steamers, construct wharves, etc. Bodwell and Lawson, solicitors, Vancouver, are acting for the promoters.

Detroit River Tunnel. The actual length of the tunnel under the river will be 7,400 ft., but the approaches at the two ends will make the total length about 2½ miles. The U.S. Government requires a depth of 40 ft. in the channel over the tunnel, so that the top of the tunnel will not come higher than 45 ft. under the water level, allowing for 5 ft. of gravel on its crest.

Duluth, Virginia and Rainy Lake Ry.—W. H. Cook, President, with a party of stockholders, visited International Falls, Minn., opposite Fort Frances, Ont., recently, traveling over the located route of the line, from its present terminus at Ashawa. The desirability of constructing a bridge over the river at this point was discussed, and Fort Frances residents were given to understand that the company would give the matter every consideration. The line starts from Rainy Junction, where connection is made with the Duluth, Missabe and Northern Ry., and is being operated to Ashawa, 27 miles. Construction is proceeding beyond this point, the contracting company being known as the Minnesota Land and Construction Co. The officers are: President, W. H. Cook, Duluth; Vice-President, C. F. Ruggles, Virginia, Minn.; Auditor, J. Sobotta, Virginia; Secretary and Treasurer, D. O. Anderson. (Oct., pg. 459).

Esquimalt and Nanaimo Ry.—A second party has been fitted out for the purpose of exploring the country between Nanaimo, the present terminus of the line, and Comox, with a view of surveying a route for an extension of the line. (Sept., pg. 405).

Flathead River to Crow's Nest.—Application will be made next session of the British Columbia Legislature for an act incorporating a company with power to construct a railway from the Flathead River, near the International boundary, northerly to Crow's Nest or McGillivray, on the Crow's Nest Pass section of the C.P.R.; and branch lines. McPhillips and Heisterman, solicitors, Victoria, are acting for the applicants.

Grand Forks to Franklin Camp.—Application will be made next session of the British Columbia Legislature for an act incorporating a company, with power to construct a railway from Grand Forks to the Franklin mining camp on the east fork of the north fork of the Kettle River. E. Miller, solicitor, Victoria, is acting for the applicants. The Kettle Valley Lines proposes to construct a line in the same territory and has had surveys made.

Great Northern Ry. of Canada.—The line under construction from the Quebec bridge, to a junction with the proposed line from near Shawenegan Falls to Quebec, will be

(Continued on page 565.)

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NOTICE is hereby given that a dividend of six per cent. on the paid up capital stock of the company for the half year ended Nov. 30th, 1905, has been declared payable Dec. 1st, 1905, to shareholders on record as of the 30th of Nov., 1905.

By order of the Board.

R. A. SMITH, Secretary.

Toronto, Nov. 18th, 1905.

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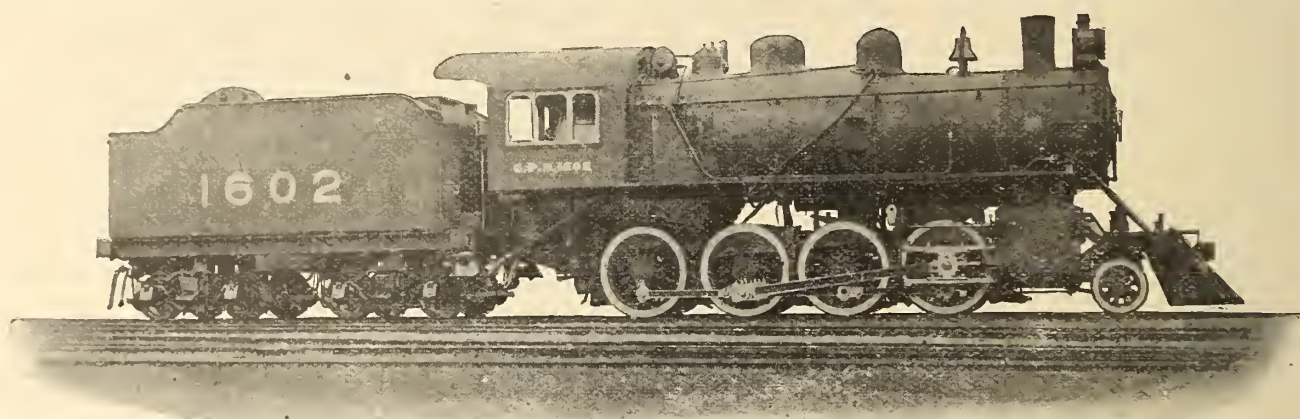
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RAILWAY DEVELOPMENT.

(Continued from page 561.)

about $7\frac{1}{2}$ miles in length. It will run north for about half a mile from the bridge, and then through Cote St. Francois, parallel to the highway from Quebec to Cap Rouge. At about $2\frac{1}{2}$ miles from the bridge the line turns north-east, crossing St. Foye road and going through St. Felix du Cap Rouge, and Cote St. Michel to the proposed junction. Practically the first five miles is solid rock and earth stripping, the last couple of miles being light work. The principal bridges are: mileage three, a 30 ft. span over the highway; at mileage four, and near mileage five, bridge over the Ruisseau La Soie River. The steepest gradient is $\frac{1}{2}$ of 1% and the maximum curvature 6° . Schell, Kennedy and Lowthian have the contract for this line.

The branch line between St. Epiphane and St. Jacques l'Achigan, upon which track was laid in 1904, has been completed, and was opened for traffic Oct. 25.

The Great Northern Ry. at present secures its entrance into Quebec over the line of the Quebec and Lake St. John Ry., but has completed surveys for a direct line from Burrill's siding, mileage 85.7 from Montreal, into Quebec, so as to secure an independent entrance. The first proposal was to construct a cut-off from Garneau Jet., 97.7 miles from Montreal, to St. Catherine's, on the Q. and L. St. J. Ry., mileage 173.3 from Montreal; and a later project was to construct the line from Shawenegan Falls, 95 miles from Montreal, to Quebec. The new line from Burrill's siding to Quebec will be about 100 miles in length. The heaviest gradient going east will be one-half of 1%, and going west 0.4%; and the curvature will vary from 30 minutes to 1° . Tenders have been asked for the construction of this line. (Oct., pg. 459.)

Guelph and Goderich Ry.—The stations to be erected on this line will be located at Guelph, Weisenburg, Elmira, Wallenstein, Linwood, Millbank, Milverton, Mornington, Monkton, MacNaught, Walton, Blyth, Auburn, Colborne and Goderich. A contract has been let to Edge & Gutteridge, Seaford, Ont., for the erection of these station buildings. Rapid progress is being made with the grading on this line, and it is expected to get the grading on the Guelph section completed before work is given up for the season. The work at the Goderich end has been delayed owing to an extensive landslide on the banks of the Maitland River. Tracklaying is in progress.

The Board of Railway Commissioners has approved plans for highway bridges over the G. and G. Ry., at mileage 11.10 and mileage 64.75 from Guelph, Ont., and has sanctioned the line crossing the highway at 14 different points. (Oct., pg. 459.)

Halifax and Southwestern Ry.—A plan of the proposed bridge across the line at the crossing of the Mersey River, near Liverpool, N.S., has been deposited with the Minister of Public Works, Ottawa, and an application has been made for an order-in-council approving of the location of the bridge. (Oct., pg. 459.)

Intercolonial Ry.—Tenders are under consideration for the erection of seven 50,000 gall. water tanks complete, one at each of the following places: Gibson, Upper Cross Creek, Boicestown, Blackville, Chatham Jet., and Loggieville, on the Fredericton and Loggieville division; and one at Drummondville, Que. A contract has been entered into with Morrison and Finlayson, for the extension of the I.C.R. at Sydney Mines, N.S. Construction is being pushed on the new I.C.R. station, and it is expected that the new building will be completed in the spring.

Snow fences are being constructed at a

number of points along the line between Point Tupper and Sydney, N.S. Tenders are also under consideration for repairing the railway between Indiantown and Blackville, N.B.; for the construction of a loading platform, the extension of the freight shed, and the erection of a crane at New Glasgow, N.S., as well as for the construction of a spur line 1.18 miles in length from Fort Lawrence to Fort Lawrence wharf on the La Planche River, near Amherst, N.S. The wharf was built by the Public Works Department so that the merchants of Amherst might have access to the sea, and the siding is to be constructed to give the necessary railway connection. (Oct., pg. 459.)

James Bay Ry.—The Board of Railway Commissioners at its Toronto sittings, Nov. 7, gave consideration to the question of the entrance of the J.B. Ry. into Toronto. The matter came up on the application of the C.P.R. for permission to double track its line in Toronto from Winchester St. bridge to Parliament St., to which the J. B. Ry. objected. The J. B. Ry. has asked for 14 ft. of railway reserve adjoining the roadway on the west bank of the Don River for its entrance into the city. The city council opposes the application on the ground that there are already a sufficient number of tracks in the Don valley, and asks that the Commission shall direct the J. B. Ry. to use the old Belt Line tracks to Queen St., and that running rights be given over existing lines from that point. The matters were fully argued and decisions reversed.

We were recently informed that about 70% of the grading has been completed between Toronto and Beaverton; the work between Beaverton and a point four miles south of Severn River, has been held up on account of the negotiations with Orillia as to whether the line should be carried round the east or west side of Lake Couchiching; and the grading has been practically completed from four miles south of the Severn River into Parry Sound. It is expected to complete the grading and bridging between Toronto and Beaverton, and possibly that between Beaverton and four miles south of Severn River this year. When advised track had been laid for 28 miles south from Parry Sound and eight miles south from Beaverton, and it is expected to lay the track from Toronto to end of the track south of Beaverton this year, and also to complete the track as far south from Parry Sound as Severn River. A station has been built at Parry Sound, and stations are being built at Barnsdale and Beaverton. This work is being done by the company. At Parry Sound a dock has been constructed about 800 ft. by 50 ft., with double depressed tracks alongside it. The divisional point will be at Parry Sound, and an eight stall roundhouse, with machine shop 90 by 40 ft., will be constructed. The bridge across the Seguin River consists of three spans of 75 ft. each, and two of 30 ft. each. A swing bridge has been constructed over the outlet of Muskoka Lake at Bala. North from Parry Sound six miles of grading have been completed and it is expected to finish an additional 16 miles of grading this year. Grading is also going on north of the French River for 20 miles. Tracklaying has been started north of Parry Sound, and it is expected to lay about 15 miles this year. S. H. Sykes, Parry Sound, is in charge of construction. A survey is being made from a point on the line near Parry Sound to Ottawa, to which point the company has power to construct a line. (Oct., pg. 459.)

Killarney to Hutton Township.—A line of railway will be constructed immediately from Killarney, on the shores of Lake Huron, to some extensive iron ore mines in Hutton township, a distance of about 70 miles.

Mackenzie, Mann & Co. are largely interested in the mines, and D. D. Mann is reported to have stated in a recent interview that the line of railway was already under construction and would be completed by Sept., 1906. At Killarney shipping piers will be erected so that the ore may be shipped to blast furnaces. The C.P.R. has completed surveys for a branch line from Sudbury to a point in Hutton township, but we were recently advised that it might never be constructed. At the last session of the Ontario Legislature Sault Ste. Marie people applied for an act incorporating a company with the title of the Manitoulin and Iron Range Ry. for the purpose of constructing a railway from Hutton tp., southerly and westerly to Lake Huron, near the boundary of Humboldt tp., but although approved by the railway committee it did not get through the Legislature. The lake terminal of the line now being constructed will be further west than that proposed for the Manitoulin and Iron Range Ry., and will in all probability connect with the James Bay Ry., now under construction from Toronto to Sudbury, by Mackenzie, Mann & Co. The main line of the Canadian Northern Ry., now being surveyed by Mackenzie, Mann & Co., from near Port Arthur easterly, will run near Hutton tp., and a connection with it will, it is also probable, be made.

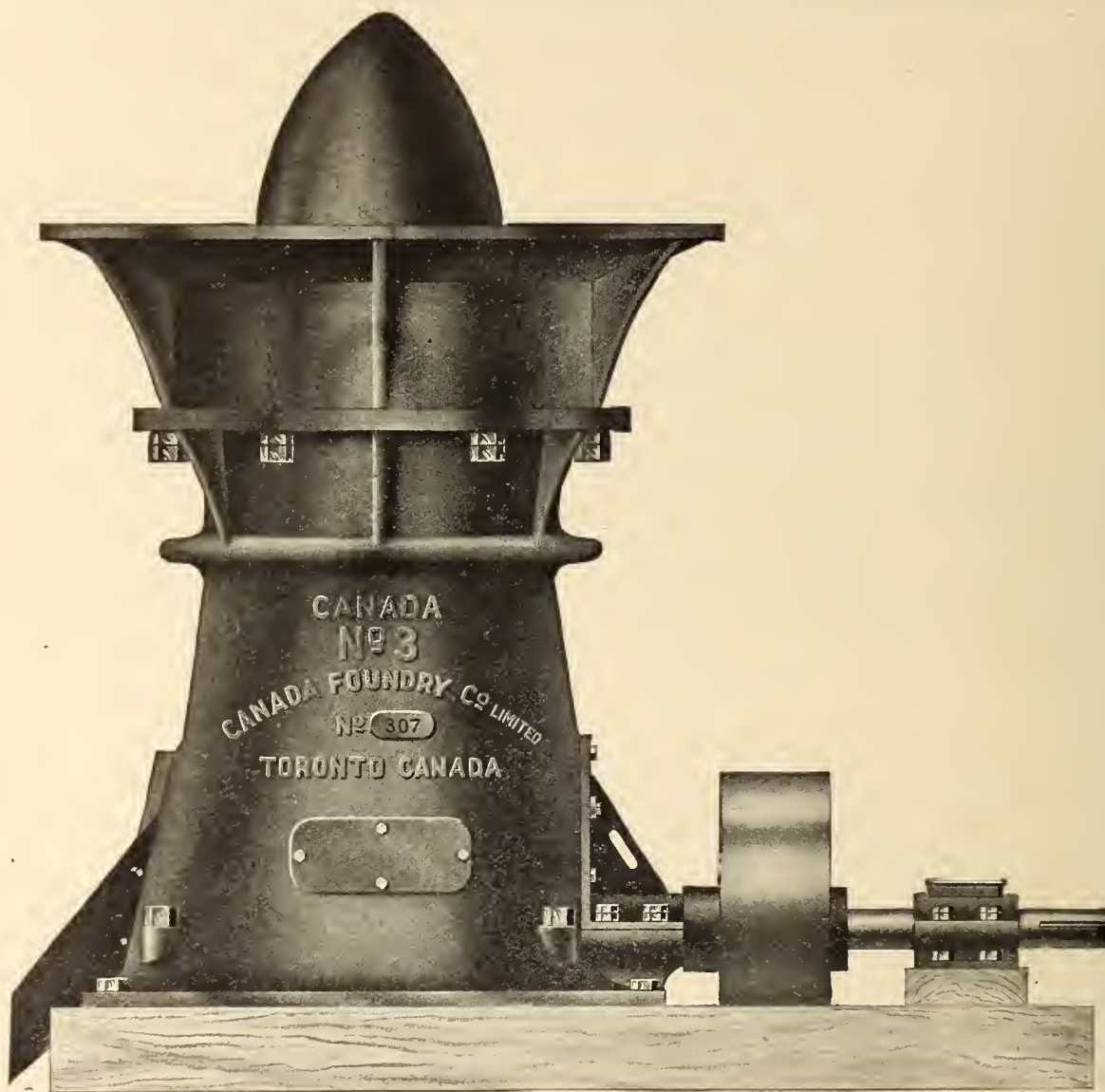
Klondike Mines Ry.—We have been advised that four miles of line have been completed and grading has been finished to the end of the seventh mile. From that point to the 13th mile grading has been done in spots. Work was delayed considerably owing to the injunctions which were taken out by miners, who had staked out claims covering the right of way. It is not likely that any further construction will be done this year. As located, the line starts from Dawson City, crosses the Klondike River, which it follows until Bonanza Creek is reached. It then follows the left bank of Bonanza Creek as far as 51 below Discovery, where it crosses the creek and follows the right bank to Grand Forks. (Oct., pg. 459.)

Medicine Hat and Northern Alberta Ry.—A meeting of shareholders for organization purposes was called to be held at Winnipeg, Oct. 31, but was postponed to Dec. 5. The act of incorporation was passed by the Dominion Parliament in 1902. J. Cochrane, D. Lockerby, Montreal; F. R. Latchford, H. B. McGiverin, Ottawa; F. H. Phippen, Winnipeg, being the provisional directors. The company was given power to construct a railway from Medicine Hat, Sask., on the C.P.R., northwesterly to tp. 31, ranges 16 or 17, west of the 4th principal meridian, thence to Victoria on the North Saskatchewan River, Alta. Power was also given to enter into agreements for conveying or leasing the line, or for amalgamation with the C.P.R. or the Canadian Northern Ry. In 1903 the Dominion Parliament passed a further act authorizing the company to construct a line from Medicine Hat southerly to the International boundary near Many Berries Creek, and a branch from the previously authorized line near its crossing of the Battle River, northwesterly to Strathcona, Alta. At its last session the Dominion Parliament extended the time limit for the commencement and completion of the lines. (Feb., pg. 49.)

Michigan Central Rd.—Surveys are being made for a second track between Tilbury and Ridgeway, Ont., and for a line from Edy's Mills to Dawn. An order has been placed for 100 lb., 90 lb., and 85 lb. rails for use on various parts of the line, the total cost of the new rails being estimated at \$4,150,000, about \$900,000 being for rails to be used on the Canadian portion of the company's line. (Oct., pg. 459.)

Midland Ry. of Manitoba.—Surveys are being made for a line from Portage la Prairie,

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Man., southerly by way of Elm Creek, to the International boundary at Emerson. No branch lines are projected for the present. S. Jones is in charge of the surveys, and an office has been opened in Portage la Prairie, P. E. Thain being in charge. A contract is reported to have been let, and it is said construction will be gone on with at once.

See also Brandon, Saskatchewan and Hudson's Bay Ry.

Midway and Vernon Ry.—Construction work is being proceeded with from Midway, B.C., westerly by three sets of contractors, representing the M. and V. Ry., the C.P.R., and the Victoria, Vancouver and Eastern Ry. The M. and V. Ry. Co. was incorporated by an act of the British Columbia Legislature in 1901, the provisional directors being: J. H. Senkler, E. Bloomfield, and A. P. Judge, of Vancouver, B.C. The line authorized to be constructed was to extend from Midway to the mouth of Rock Creek, thence northeasterly to the west fork of the Kettle River, along this fork by the most convenient route via Okanagan Mission valley to Vernon, with power to construct branch lines. In 1903 an act was passed by the Dominion Parliament recognizing the B.C. charter and declaring the line authorized to be constructed to be for the general advantage of Canada. A subsidy was voted under the usual conditions by the Dominion Parliament in 1903 for the construction of a line from Midway to Vernon. Plans for the location of the line from Midway to Rock Creek, 11.88 miles, and from Rock Creek to West Bridge, 10.8 miles, have been approved by the Board of Railway Commissioners. A. R. Pope of Greenwood, B.C., is General Manager, and — Lackie is Chief Engineer. At the end of Oct., a party consisting of A. A. Arthur, New York; F. O. Harvey, an English mining engineer, and C. B. Schmidt, an agricultural and irrigation expert from Pueblo, Colo., went over the route between Midway and Vernon, about 150 miles. (Jan., pg. 13). See also C.P.R. Betterments, etc., and Vancouver, Victoria and Eastern Ry.

Nepigon Ry.—The charter and rights of the Nepigon Ry. Co. has been acquired by Mackenzie, Mann & Co., who will utilize it in connection with the working out of their plans for connecting the James Bay Ry. with the Canadian Northern Ry. system at or near Port Arthur, Ont. The N. Ry. was projected from the shore of Lake Superior near Nepigon station on the C.P.R., to the south shore of Lake Nepigon, 40 miles, with the right to run a ferry on the lake, to connect with a line to be constructed northerly and westerly to the Albany River. Provincial and Dominion subsidies are available for certain portions of the mileage; surveys have been completed for the first 40 miles of the line, and a good deal of other preliminary work had been done by the promoters, J. Connee, M.P., being one of the principal men interested. It is stated that the surveys made by Mackenzie, Mann & Co., paralleled the N. Ry. surveys for 28 miles, and that it was arranged to purchase the charter of the N. Ry., rather than to have two lines. (Sept., 1904, pg. 315).

New Brunswick Coal and Ry. Co.—The Provincial Engineer, A. R. Wetmore, recently made an inspection trip over the line, and examined the work in progress under the contract of Brown Bros. The contractors have a steam shovel, two working trains, and over 100 men engaged in clearing up the track, strengthening and reconstructing the bridges. (Oct., pg. 459).

Nicola, Kamloops and Similkameen Coal and Ry. Co.—Four miles of grading from Spences Bridge towards Nicola Lake was reported completed Nov. 2, and grading is being pushed forward. Tracklaying was expected to be started by the end of Nov., and a Vancouver press report states that it is hoped

to run the first trains by the end of the year. A meeting of shareholders was held in Montreal Nov. 15, when the lease of the line to the C.P.R. was ratified, and authority given to issue bonds to pay for construction, and authorizing the form of mortgage to secure the same. (Oct., pg. 459).

Owen Sound and Meaford Ry.—A meeting of those interested in this projected line was recently held at Owen Sound, Ont., when officers were elected as follows: President, J. McLauchlan; Vice-President, B. Allen; Secretary-Treasurer, A. G. Mackay. The President and Secretary were authorized to negotiate with the Manitoulin and South Shore Ry. interests, with a view of securing the plans and profiles of that company's surveys between Owen Sound and Meaford. (June., pg. 243).

Pere Marquette Rd.—In connection with the reports that the company was about to construct a line extending from Kettle Creek to a junction with the Michigan Central Rd., just east of St. Thomas, Ont., about two miles, we were officially advised Oct. 10, that, owing to difficulties in obtaining the necessary right-of-way and having the city vacate certain streets in the southern portion of St. Thomas, the project has been abandoned. It was also intended to construct a yard on the proposed extension, but this yard is now being laid out just west of Kettle Creek viaduct on the company's main line. The new yard, which will have a capacity of about 1,000 cars, was expected to be completed early in Nov. (Oct., pg. 459).

Prince Edward Island Ry.—The swing-span of the Hillsboro River bridge was placed in position, Oct. 19, and a special train passed over it, carrying a large number of officials and other guests on a through trip from Charlottetown to Murray Harbor, 44 miles, Oct. 26. The bridge was formally opened Nov. 1, and the Murray Harbor branch trains are being run regularly into Charlottetown.

Tracklaying on the branch from Cardigan to Montague, was completed Oct. 30, when only about a mile of ballasting was necessary in order to finish it ready for opening. The station building and turntable were built during Nov.

The plans for the new station at Charlottetown have been received by G. A. Sharp, Superintendent. The new building will be erected on the corner of Weymouth and Water streets, opposite the present station; it will be three stories high, with a frontage of 118 ft. on Weymouth St., and 43 ft. on Water St., with a baggage room 28 by 45 ft., fronting on the latter street. It will be built of local sandstone, on a concrete and stone foundation, with expanded metal and concrete floors supported on steel beams. On the ground floor there will be located the general waiting-room 40 by 40 ft.; ladies' waiting-rooms 24 by 34 ft., and 16 by 24 ft.; smoking-room 16 by 25 ft.; ticket office, trackmaster's, and paymaster's offices, vaults and lavatories. On the second floor there will be provided offices for the superintendent, and auditor, engineers, accountant, cashier and their staffs, and train-dispatchers, and rooms for trainmen, and the official files; vaults are also provided on this floor, and there is a 6 ft. hallway running from end to end of the building. It is not proposed to finish the third floor at present. The floor and wainscoting will be finished in narrow-width hardwood, and the ceilings will be metal. There will be a concrete platform on the Weymouth St. front, and between the building and the tracks there will be a covered platform 12 ft. wide. There will be four tracks approaching the station, where there will be platforms 14 ft. wide, covered by umbrella roofs, supported on steel columns. Tenders will be called for at an early date. (Oct., pg. 459).

Quebec and Lake St. John Ry.—Ten miles of track had been laid on the branch line under construction to La Tuque, on Oct. 31. The grading for an additional eight miles had been completed, and considerable work had been done beyond that point. The first ten miles was expected to be ready for Government inspection Dec. 6; and it is expected to have the branch completed to La Tuque, 40 miles, by Sept., 1906.

Six miles of track have been laid on the Gosford branch from Valcartier, and the ballasting had also been done. Some further grading has been done on the branch. (July, pg. 287).

St. Maurice Valley Ry.—A contract has been let by the St. Maurice Construction Co. to Ross & McRae, who have just completed some second track work on the G.T.R. near London, Ont., for the construction of the 22 miles of line from Three Rivers to Shawenegan Falls and Grand Mere. The contract price is reported to work out at about \$500,000. The line has been located from a connection with the C.P.R. at Three Rivers, to the side of Le Gres River, where a water-power has been purchased by a United States syndicate for development purposes; and follows the east bank of the river to the foot of Shawenegan falls, where it will cross to the west bank over a deep gorge. From this point the line will run to Shawenegan Falls, and thence to Grand Mere, crossing the Great Northern Ry. en route. Ten miles of the grading is ordinary prairie work, and the balance is heavy clay and rock. The principal structures will consist of a 112 ft. steel deck truss at Head Race; a 270 ft. steel arch at the gorge crossing St. Maurice River; and a structure consisting of seven 150 ft. deck spans at the second crossing of the St. Maurice River. The ruling gradients are 1% northbound, compensated; and 0.5% southbound, compensated; while the greatest curvature is 8°. The contract covers all the work connected with putting the line in operation with the exception of the steel structures. (Oct., pg. 464).

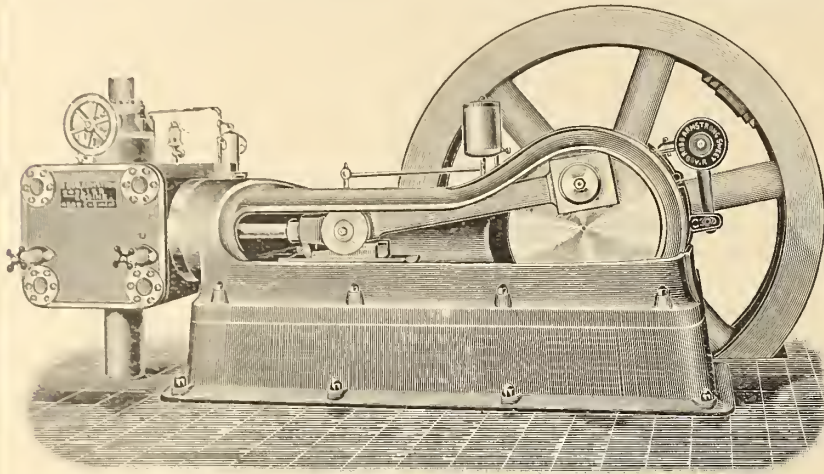
St. Rose to Caribou Cove.—The Nova Scotia Collieries Co. is making a survey for the construction of a line of railway from the coal mines it is opening up at St. Rose, to Caribou Cove, or Port Malcolm, on the Strait of Canso. The projected route is from St. Rose to Orangedale, on the I.C.R., thence down the east side of Lake Ainslee to the strait. Alternative lines will be run to Hawkesbury, Hastings and to Caribou Cove, for the last few miles. Messrs. Fell & Thomas, who came out from England, are in charge.

The Salmon River and Northern Ry., is under construction from Fasset, Que., about four miles from Montebello, on the C.P.R. northshore line between Montreal and Ottawa, and runs due north. At present it has under construction 10 miles into the woods to assist in the lumbering operations of the Haskell Lumber Co. This company is doing the construction and hopes to complete the 10 miles this year. Several short lateral spur lines will be built, and the line will ultimately be extended further north. The engineer in charge of construction is Mr. Nicholls.

The company has obtained the approval of the Board of Railway Commissioners to its projected crossing of the C.P.R. near Grenville, Que., with power to use it during daylight, as a temporary crossing during construction of the line. F. W. Hibbard is Secretary, and W. L. Haskell is General Manager. The secretary has an office at 151 St. James St., Montreal. (Oct., pg. 461).

Spokane International Ry.—A recent press report states that over 1,200 men are at work on this line between Spokane, Wash., across Idaho, to Bonner's Ferry, and International boundary, B.C., where connection is to be made with the C.P.R. branch now under construc-

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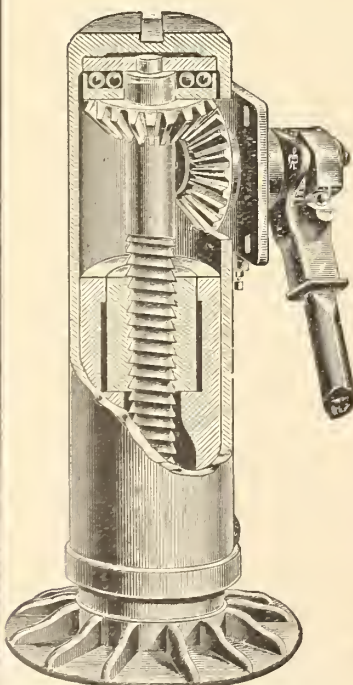
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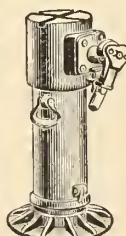
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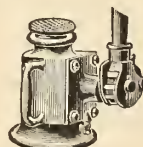
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tion from Yakh. The line is 140 miles in length, of which 18 miles are located in Washington and 122 in Idaho. The line has been surveyed from the International boundary to Hoodoo valley, 90 miles, and is under survey from the latter point to Spokane. The maximum gradients are 26 ft. to the mile, and the sharpest curves on the heavy grade divisions only are 10°, elsewhere the curvature is light. Grading is in progress from the boundary line to Pack River, Idaho, 60 miles. E. J. Taber is Chief Engineer in charge of the work, the contractors being Winters, Parson & Boomer, Twohy Bros., of Spokane, Wash., and Grant, Smith & Co., Chicago, Ill., for the grading; and H. J. Skinner of Spokane, for the bridge construction. (Oct., pg. 461).

Temiskaming and Northern Ontario Ry.—Tracklaying on the extension northerly from New Liskeard to Lake Abitibi has been resumed, the bridge at the second crossing of the Blanche River having been completed. It is expected that about 50 miles of track will have been laid by the end of the year.

The commissioners for the construction of this railway at a recent meeting decided that the location of the uncompleted portion of the line should be moved back several miles from the original line decided upon, viz., along the Black and Abitibi Rivers. The new location will be a less extensive one to construct than that previously decided upon.

C. B. Smith, Chairman of the Commission, returned to Toronto, Nov. 6, from a trip to Europe, where he had been looking into what had been done in the way of demonstrating the successful operation of long distance railways by high tension electric currents. He says, so far as he was able to learn, electrification of the road had been followed by a betterment of the service and more comfortable cars. If it were finally determined to adopt electricity as a motive power it was probable that the power development plant would be constructed near Mountain Falls, on the Montreal River. The electrical equipment of the line, it is estimated, will cost about \$1,000,000. (Oct., pg. 461).

Toronto, Hamilton and Buffalo Ry.—Plans have been prepared, and are under consideration, for the enlargement and rearrangement of the T., H. and B. yards at Brantford, Ont. Six additional tracks will be laid, thus doubling the present capacity, and to provide the extra space the city has been asked to approve of the closing of Newport St. (Sept., pg. 409).

Vancouver, Victoria and Eastern Ry.—J. J. Hill, President, stated recently at Vancouver, B.C., that the V., V. and E. Ry. would be commenced at once and pushed forward towards Vancouver, the point at which construction would be commenced would be Cloverdale.

In the annual report of the Great Northern Ry. (U.S.) just issued the following facts are given in connection with the line under construction in British Columbia as the V.V. and E. Ry., and in Washington, U.S., as the Washington and Great Northern Ry.: The grade for the Washington and Great Northern Ry. line from Curlew, Wash., to the International boundary at Midway, referred to in last year's report, was completed during the year, but work was then stopped pending passage of an act by the Canadian Parliament granting the V.V. and E. Ry. the right to connect at the International boundary with the W. and G.N. Ry. lines. These matters having been satisfactorily adjusted, in spite of the strenuous opposition of competitors, work has been resumed since the close of the fiscal year, and tracklaying on this line is now in progress.

Line from the International boundary at Midway, via Molson and Oroville, to Keremeos, B.C., 96 miles. Of this line 49 miles within the United States are being built by the W. and G.N. Ry., and 47 miles in British Columbia by the V.V. and E. Ry. The latter com-

pany has just completed the location of an extension from Keremeos to Princeton, 40 miles, and work will be begun as soon as possible. It is hoped to complete the line to Princeton by July 1, 1906, but a great deal of the work is very heavy. This line when completed will open up the Boundary country, rich in mineral resources, and the development of a heavy ore traffic is expected. Surveys for the extension of the V.V. and E. Ry. from Princeton through the Hope Mountains and the valley of the Fraser River to Vancouver, B.C., are being made.

The legislation referred to in the report of the G.N. Ry., gave the V.V. and E. Ry. power to connect its line with the lines of the W. and G.N. Ry., at the International boundary, wherever the physical characteristics of the country render construction in B.C. impossible, subject to the approval of the Government. An order-in-council was passed July 28, giving effect to the legislation in the following terms.—“On a memorandum dated July 28, 1905, from the Minister of Railways, representing that by an act passed during the session of Parliament now closed respecting the V.V. and E. Ry. and Navigation Co. it was provided as follows: The company may, at such points on the International boundary line, between the west bank of the Similkameen River and the Columbia River, as the Governor-in-Council deems expedient, for the purpose of avoiding difficulties in construction, make connections with duly authorized United States railways. The Minister further represents that the company have submitted for approval a route map in revision of that already approved by the Minister of Railways and Canals under section 122 of the Railway Act, which is for a line wholly within Canadian territory, such revised maps showing two points of crossing of the United States boundary between which the proposed line will be run for a distance of 46 miles through American territory. They state that the difficulties they wish to avoid comprise an increased summit of 300 ft. on one mountain, and of 1,150 feet on a certain pass, also 10 miles of excessively expensive work along rock bluffs where it is well nigh impracticable to build, and a crossing of a creek 1,200 ft. wide and 390 ft. deep. The Minister also represents that under date July 26, the Chief Engineer of the Department of Railways and Canals has reported with regard to these statements, that as both the statements made indicating the almost impracticable character of the route through Canada, and the information shown on the route map were prepared by Mr. Kennedy, the Chief Engineer of the railway, a gentleman of high character, the route map submitted may reasonably be approved. The minister recommends that in pursuance of the aforesaid statutory provision approval be given of the making of connections with United States railways, as so provisionally authorized at the two points shown as ‘A’ and ‘B’ respectively on the said revised route map.”

On Oct. 12, the section of the line from Curlew to Ferry, Wash., was opened for freight traffic. Ferry, Wash., is on the bank of the Kettle River, directly opposite Midway, B.C. At the end of Oct. the employees of the contractors for the V.V. and E. Ry. construction met with opposition from the C.P.R., on their reaching the lands of the Columbia and Western Ry. The C. and W. Ry. at present has its westerly terminus at Midway, but is projected, and preliminary surveys, at any rate, have been made to Penticton. The matter was taken to the courts at Victoria, the V.V. and E. Ry. Co. applying for an order to be put in possession of the necessary right of way by expropriation proceedings. Subsequently the V.V. and E. Ry. contractors started grading easterly from Rock Creek, about 12 miles west of Midway, and the C.P.R. contractor started operations from Midway westerly towards Rock Creek. On

Nov. 3, after a skirmish the V.V. and E. men withdrew, but the conflicts between the gangs were renewed on subsequent days after the arrival of reinforcements, and extra forces of police were brought into the district Nov. 10 to preserve order. A third company—the Midway and Vernon—is in the field to construct a line from Midway westerly through the same territory as far as Rock Creek at any rate, its objective point being Vernon. This still further complicates the situation. (Oct., pg. 461).

See also C.P.R. Betterments, Construction, etc., and Midway and Vernon Ry.

Vancouver, Westminster and Yukon Ry.—In connection with the projected extension of this line from Vancouver towards the Yukon, J. J. Hill, President Great Northern Ry. (U.S.), stated in an interview at Vancouver, that the G.N. Ry. had nothing to do with it, and he did not know anything of its plans. The company proposes to commence at once the erection of wharves and warehouses on the waterfront at New Westminster, on a total area of seven and a half water lots. On the completion of the work the company will lay a track or tracks from its railway to the wharves and warehouses. (Oct., pg. 461).

White Pass and Yukon Ry.—Reports from the Yukon Territory state that V. I. Hahn, Chief Engineer W.P. and Y. Ry., is making a survey in the Windy Arm district, with a view of constructing a loop line so as to connect with Tooche and Conrad City. No decision had been reached, it was stated, when construction was to be started, or as to how it was proposed to run the loop.

The G.T.R. has moved its Deseronto station to Napanee, Ont.

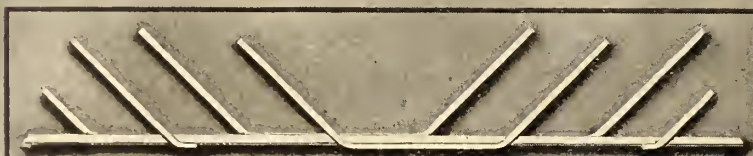
The C.P.R. has arranged a traffic agreement with the Oregon Rd. and Navigation Co., which serves an extensive territory in the Columbia basin.

The title of the Northern Construction Co. which was incorporated under the Dominion Companies' Act in Aug., has been changed to the Federal Construction Co., by supplemental letters patent, so as not to conflict with the Northern Construction Co., an Ontario corporation engaged in construction work on the James Bay Ry. The offices of the Federal Construction Co. are at Montreal, the directors being:—E. M. O'Brien, J. B. Ross, E. C. Perkins, G. A. Lafontaine, W. R. Staveley, all of Montreal.

An order-in-council has been passed disallowing the act passed last session of the British Columbia Legislature relating to the employment on works carried on under franchises granted by private acts. The act provided that no person should be employed upon the construction or operation of a railway, tramway, electric railway, telegraph or telephone line; upon harbor or canal construction, or a number of other public works unless he could read the act in a language of Europe, and imposed penalties for breaches of the law.

The New Brunswick Coal Co. has been incorporated under the New Brunswick Companies' Act, with a capital of \$25,000 and offices at Minto, to carry on coal mining. The provisional directors are: G. McAvity, C. N. Skinner, A. P. Barnhill, A. I. Trueman, St. John, N.B., and J. Barnes, Buctouche, N.B. The coal mines at this point were opened up by the promoters of the New Brunswick Coal and Ry. Co., which afterwards absorbed the New Brunswick Central Ry. J. Barnes was a member of the contracting firm which built the railway from Norton to Minto, and G. McAvity is one of the commissioners appointed by the New Brunswick Government to operate the line on the failure of the N.B. Coal and Ry. Co. to do so.

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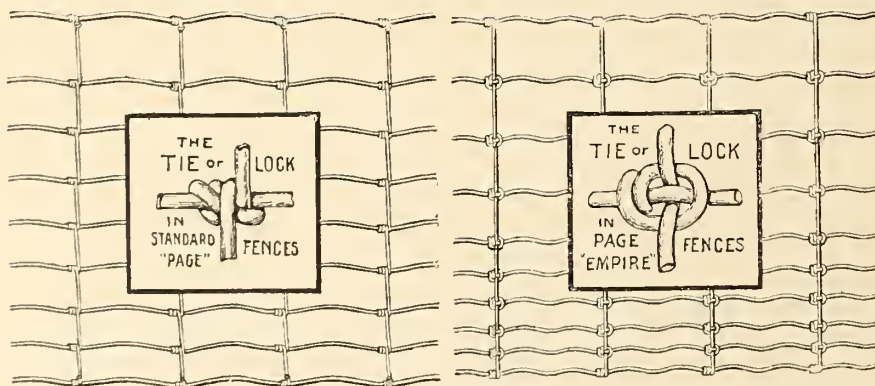
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403 CORDOVA STREET, - VANCOUVER, B.C.

December Birthdays.

Many happy returns of the day to—

A. H. Anderson, Cashier, Paymaster, and Purchasing Agent, Quebec Central Ry., Sherbrooke, Que., born at Cookshire, Que., Dec. 19, 1859.

J. H. Barber, Division Engineer, C.P.R., St. John, N.B., born at Cobourg, Ont., Dec. 20, 1856.

E. T. Boland, General Agent Dominion Steamship Line, Toronto, born there, Dec. 20, 1869.

N. E. Brooks, C.P.R., Division Engineer, Calgary, Alta., born at Sherbrooke, Que., Dec. 25, 1866.

D. Brown, ex-Manager Milwaukee and Michigan Line and Grand Trunk Despatch, at Detroit, Mich., now at Chicago, Ill., born at Glasgow, Scotland, Dec. 21, 1843.

J. C. M. Buntzen, Managing Director British Columbia Electric Ry. Co., London, Eng., born at Copenhagen, Denmark, Dec. 16, 1859.

P. E. Demers, Trainmaster Central Vermont Ry., Farnham, Que., born there Dec. 10, 1859.

W. N. Dietrich, Electrical Engineer C.P.R., Montreal, born at Perth, Ont., Dec. 23, 1872.

J. W. Donald, District Passenger Agent, Chicago and Alton Rd., Detroit, Mich., born at St. John, N.B., Dec. 22, 1857.

H. P. Dwight, President Great Northwestern Telegraph Co., Toronto, born at Belleville, Jefferson Co., N.Y., Dec. 23, 1828.

R. Forget, M.P., President Richelieu and Ontario Navigation Co., Montreal, born at Terrebonne, Que., Dec. 10, 1861.

P. Gifkins, General Manager Dominion Atlantic Ry., Kentville, N.S., born at Harpenden, Herts., England, Dec. 25, 1850.

H. H. Gildersleeve, Manager Northern Navigation Co. of Ontario, Collingwood, born at Kingston, Ont., Dec. 15, 1865.

A. J. Gorrie, General Superintendent Great Northern Ry. of Canada, Montreal, born at Raith, Kirkcaldy, Scotland, Dec. 10, 1868.

D. B. Hanna, Third Vice-President Canadian Northern Ry., Toronto, born at Thornliebank, Scotland, Dec. 20, 1858.

S. P. Howard, General Freight Agent Eastern and Lake Superior Divisions C.P.R., Montreal, born there, Dec. 30, 1865.

R. R. Jamieson, General Superintendent Western Division C.P.R., Calgary, Alta., born at Westover, Ont., Dec. 12, 1856.

B. B. Kelliher, Chief Engineer Grand Trunk Pacific Ry., Montreal, born in Ireland, Dec. 26, 1862.

W. Kennedy, Master Mechanic Middle Division, G.T.R., Toronto, born at Belleville, Ont., Dec. 23, 1869.

L. Macdonald, Division Freight Agent G.T.R., Hamilton, Ont., born at Montreal, Dec. 10, 1871.

L. McLean, Superintendent Sydney and Louisburg Ry., Glace Bay, N.S., born there, Dec. 10, 1867.

J. Niblock, Superintendent C.P.R., Calgary, Alta., born in York county, Ont., Dec. 21, 1849.

E. C. Oviatt, Travelling Passenger Agent, C.P.R., at Battle Creek, Mich., born at Hudson, Ohio, Dec. 3, 1852.

J. V. Paul, Locomotive Fuel Inspector C.P.R., Montreal, born at Mokelumne Hill, Cal., Dec. 29, 1863.

A. Price, Superintendent of Transportation Western Lines, C.P.R., Winnipeg, born at Toronto, Dec. 6, 1861.

C. Schrieber, C.M.G., Consulting Engineer Department of Railways and Canals, Ottawa, Ont., born at Bradwell, Essex, Eng., Dec. 14, 1831.

F. P. Smith, Secretary Richelieu and Ontario Navigation Co., Montreal, born there, Dec. 23, 1873.

C. E. E. Ussher, General Passenger Agent

C.P.R. Eastern Lines, Montreal, born at Niagara Falls, Ont., Dec. 29, 1857.

H. H. Vaughan, Superintendent of Motive Power, C.P.R. Eastern Lines, Montreal, born at Forest Hill, Essex, England, Dec. 26, 1868.

B. D. Webber, General Manager Canadian Pacific Despatch, Boston, Mass., born at Beverley, Mass., Dec. 3, 1851.

W. Wood, locomotive foreman, C.P.R., Megantic, Que., born at Montreal, Dec. 6, 1863.

Thanks from the Ticket Agents.

Secretary de la Hooke sent the following letter on behalf of the Canadian Ticket Agents' Association to Chairman R. W. Scott and other members of the reception committee at Portland, Me.:—

"After a week of unalloyed pleasure, and having to a limited extent persuaded myself that I am not a gentleman of leisure, but, on the contrary, have work to perform, it is my intention to accomplish it by first discharging those duties which on account of their pleasant character become closely allied to gratification. Under these circumstances, will I make an effort, feeble though it be, to express to you as instructed by the members of our association so lately visiting the city of Portland, their unqualified thanks for the excellent programme you arranged for their entertainment, and for the thorough and unwearied manner in which it was carried through—not a hitch occurred—and the fact that every item was participated in by the entire party was proof positive of the completeness, variety and popularity.

"Even had I the pen of a ready writer, I could not satisfactorily recount the many expressions of pleasure and appreciation made on the hearty reception and kindly welcome accorded. Not a dull hour was experienced—for when members of the committee were not in attendance, which was I think only when we ought to have been asleep, the roomers at no. 21 were equal to the occasion and kept the ball rolling. You must have given up much time in preparing for our visit, and much more when we were with you. In return please know that you sent home a most satisfied and delighted crowd. Your hospitality was unbounded and your attention unflagging.

"The annual dinner with its cold water accompaniment was a revelation, but the beverage was of such a pure and sparkling nature, and so sweetened by the smiles of mine host of the Falmouth, that there being no headaches in the morning was rather a matter of congratulation than of surprise.

"To the ladies of Portland are thanks due, and now ungrudgingly tendered, for their frequent presence with and constant attention to the ladies of our party, laying particular stress on their journey to St. Johnsbury, which could not have been arranged but with considerable inconvenience and self-sacrifice.

"To the members of the press we are much indebted; they heralded our advent, chronicled our doings, recorded our departure, and were ever ready to say nice things about us.

"The meeting at Portland will long be remembered as a red-letter event in the annals of our association. On its behalf, I wish one and all health and prosperity, and for the city of Portland progress and success."

The John Bertram & Sons Co., Dundas, Ont., has passed a by-law increasing the number of its directors from five to seven.

The Great Northern Construction Co., which was incorporated in the State of West Virginia, but which did business in Quebec, is being wound up under liquidation proceedings.

Seed Trains in Western Canada.

R. McKenzie, Secretary-Treasurer of the Manitoba and Northwest Territory Grain Growers' Association, has issued a circular to members of the association respecting the project to run seed trains throughout the west. The circular sets forth that early in the summer W. Whyte, 2nd Vice-President C.P.R., submitted to the Dominion Department of Agriculture, a proposition suggesting joint action on the part of the Dominion Government and C.P.R. in promoting a vigorous campaign with a view of interesting grain growers in the importance of sowing pure seed. This correspondence led up to a conference being held in Mr. Whyte's office between representatives of the Department of Agriculture, Ottawa; C.P.R., Canadian Northern Ry., Manitoba and Northwest Territory Grain Growers' Association, Department of Agriculture of the Northwest Territories and other interests concerned to consider the scheme, and if deemed advisable, take action. All present, in view of the magnitude of the grain-growing industry, and that its ultimate success depends on right cultivation of the soil and sowing pure seed, were strongly in favor of the scheme. The intention is to start demonstration trains early in January of next year in Alberta, coming down through Saskatchewan and Manitoba, stopping at every grain-growing point and giving in two cars, fitted out for that purpose, demonstrations on the importance of sowing good seed, how to secure seed, and the importance of its selection and improvement. Besides this there will be practical lectures and demonstrations on the decrease in value per acre, and the decrease in revenue per acre, to the farmer, of allowing the seed to depreciate. Cabinets will be fitted up showing samples of grain sown under perfect seed conditions and samples taken from fields where the seed has been allowed to deteriorate, showing the deterioration in yield and weight, and the loss in revenue per acre to the farmer. Samples of wheat pests will also be shown, and practical information given how to eradicate them. The railways supply and pay all expenses of trains and the Dominion Government all expenses in connection with the lectures and demonstrations and cost of advertising.

New Regulations Respecting Bonding.

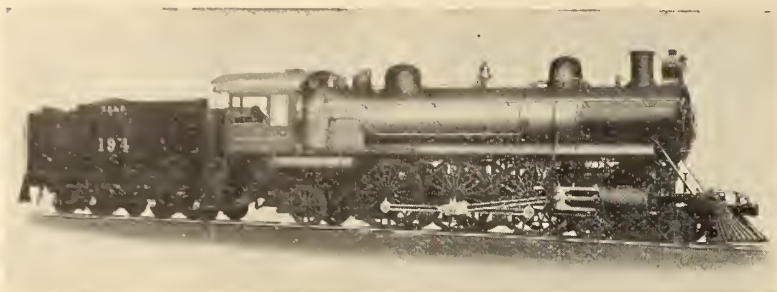
A Dominion Order-in-Council has recently been promulgated, which was passed on July 26 last, as follows:—Section 13, sub-section e of section 14 and section 15 of the Regulations respecting Bonding Warehouses in Canada, established by Order-in-Council of June 14, 1875, will be repealed on Jan. 1, 1906, and the following regulations under the provisions of The Customs Act and amending acts, will take effect Jan. 1, 1906:

Sec. 13. The fees for the privilege of Customs warehouses of class 2 and 3 shall be classed as charges for Customs special services, and the amount and scale of charges in respect thereof, taking into consideration the cost of Customs attendance, shall be determined from time to time by the Minister of Customs. The proprietor of every warehouse of class 2 and 3 shall pay to the Collector of Customs the sum determined by the Minister for the privilege granted him for the use of such warehouse, in payments in advance for the period during each quarterly term ending Mar. 31, June 30, Sept. 30 and Dec. 31.

The charges for bonded warehouses established for feeding and pasturage shall be paid in respect of each animal upon entry thereof for warehouse.

Sec. 15. The Collector of Customs will cause

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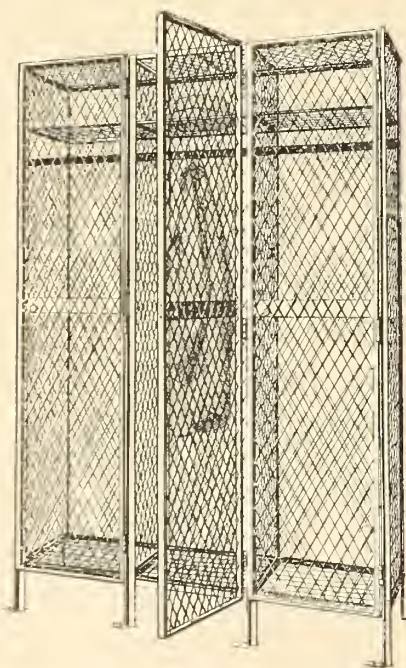
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the proprietor or occupant to place over the gate or door leading into, or on some conspicuous place on every Customs warehouse, a board or sign with the following painted thereon: "Canada Customs Warehouse."

Sec. 21. The Minister may take bonds and security from any railway company, express company, or other company, or from any firm or persons transporting dutiable goods or goods to be removed in bond between any place in Canada and any other place beyond the limits of Canada or within Canada, conditional for the due and faithful production at the respective ports of destination in Canada or beyond the limits of Canada of all goods so forwarded or undertaken to be so forwarded or transported by such companies, firms or persons in bond or under Customs manifest or under special permits of Canadian Customs officer, and for the general compliance with the Customs laws and regulations governing such traffic, before being permitted to manifest or transport goods in bond or under special Customs permits. The bonds and security shall be for such amounts and in such form as the Minister sanctions or determines.

Canadian Northern Ry. Earnings, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904-05, from July 1, 1905:

Earnings.	Expenses.	Net Earnings.	Increase or Decrease.
July.. \$395,100	\$252,600	\$142,500	\$51,400+
Aug.. 357,900	246,200	111,700	12,200+
Sept.. 378,500	268,300	110,200	14,000+
\$1,131,500	\$767,100	\$364,400	\$77,600+
Approximate earnings for Oct., \$557,100, against \$404,200 for Oct., 1904.			

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1903-04, from July 1, 1904:—

Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July \$4,629,174.95	\$2,991,397.29	\$1,449,652.14	\$188,125.52+
Aug. 4,790,733.98	3,005,088.07	1,791,645.91	263,715.48+
Sept. 4,872,575.38	3,086,595.35	1,776,010.05	507,202.49+

\$14,298,484.31 \$9,093,050.69 \$5,205,433.62 \$959,043.49+

Approximate earnings for Oct., \$5,703,000 against \$4,725,000 for Oct., 1904.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Sept., \$275,443.11; net earnings, \$109,334.95, against \$239,150.50 gross and \$90,596.73 net for Sept., 1904. Net earnings for three months ended Sept. 30, \$316,110.44 against \$269,221.63 for same period 1904. Approximate earnings for Oct., \$260,901 against \$234,014 for Oct., 1904.

MINERAL RANGE RY.—Approximate earnings for Oct., \$67,279, against \$65,009 for Oct., 1904.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Sept., \$1,148,461.45; net earnings, \$724,139.57 against \$772,505.42 gross and \$324,070.23 net for Sept., 1904. Net earnings for three months ended Sept. 30, \$1,573,154.62 against \$1,001,509.84 for same period 1904. Approximate earnings for Oct., \$1,168,798 against \$905,650 for Oct., 1904.

Canadian Pacific Railway Land Sales.

	Acres.	Amount.	
	1905.	1904.	1904.
July..	58,477.37	36,425.75	\$304,795.23
Aug..	58,542.44	15,669.90	327,579.63
Sept..	111,479.71	16,470.02	556,642.64
Oct..	79,168.41	23,792.84	412,237.95
	307,667.93	92,358.51	\$1,601,255.45
			\$ 444,696.25

Grand Trunk Ry. Earnings, Expenses, etc.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, the G.F. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1905.	1904.	Increase, Decrease.
July.....	\$3,059,675	\$3,013,149	\$46,526
Aug.....	3,301,254	3,108,137	193,117
Sept.....	3,409,163	3,182,072	226,391
Oct.....	3,569,182	3,344,181	225,001
	\$13,339,474	\$12,648,439	\$691,035

The following figures relate to the individual lines, and are made out in sterling:

GRAND TRUNK RY. CO.

Revenue for Sept.:	1905.	1904.	Increase, Decrease.
Gross receipts....	£569,300	£539,000	£30,300
Working expenses	389,600	346,000	43,600
Net profit....	£179,700	£193,000	£13,300

Aggregate from July 1 to Sept. 30:

	1905.	1904.	Increase, Decrease.
Gross receipts....	£1,634,900	£1,586,800	£48,100
Working expenses	1,114,000	1,054,300	59,700
Net profit....	£520,900	£532,500	£11,600

GRAND TRUNK WESTERN RY. CO.

Revenue for Sept.:	1905.	1904.	Increase, Decrease.
Gross receipts....	£105,100	£86,800	£18,300
Working expenses	88,400	75,400	13,000
Net profit....	£16,700	£11,400	£5,300

Aggregate from July 1 to Sept. 30:

	1905.	1904.	Increase, Decrease.
Gross receipts....	£287,000	£241,200	£45,800
Working expenses	244,700	224,400	20,300
Net profit....	£42,300	£16,800	£25,500

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.

Revenue for Sept.:	1905.	1904.	Increase, Decrease.
Gross receipts....	£26,000	£28,000	£2,000
Working expenses	18,200	19,100	900
Net profit....	£7,800	£8,900	£1,100

Aggregate from July 1 to Sept. 30:

	1905.	1904.	Increase, Decrease.
Gross receipts....	£86,200	£87,500	£1,300
Working expenses	57,400	58,700	1,300
Net profit....	£28,800	£28,800	....

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from July 1 to Oct. 31:	1905.	1904.	Increase, Decrease.
Grand Trunk..	£2,198,534	£1,088,650	£89,884
G. T. Western	395,695	344,798	50,897
D. G. H. & M.	109,792	110,665	873
Total.....	£2,704,021	£2,564,113	£139,908

Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:—

No. 701. Oct. 10.—Sanctioning deviation from the previously located line of the Midway and Vernon Ry., between Midway and Rock Creek, B.C., 11.88 miles.

No. 702. Oct. 10.—Authorizing the G.T.R. to construct a siding across King St., Orillia, Ont., to the premises of the Dominion Wrought Iron Wheel Co.

No. 703. Oct. 11.—Authorizing the C.P.R. to construct a spur track in Montreal to the property of the Eugene F. Phillips Electrical Works Co.

No. 704. Oct. 12.—Sanctioning standard plans of pile and frame trestle bridges and box culverts over main and branch lines.

No. 705. Oct. 12.—Authorizing the C.P.R. to construct a branch line across Alexander and Maude streets, Winnipeg, to the premises of A. Carruthers & Co.

No. 706. Oct. 12.—Sanctioning the location of the C.P.R. Pheasant Hills branch from mileage 364.7 to mileage 401.5.

No. 707. Oct. 13.—Authorizing the construction of a highway across the C.P.R. tracks in the town of Weyburn, Man.

No. 708. Oct. 16.—Sanctioning highway crossings at 14 points on the Guelph and Goderich Ry., on application of the C.P.R.

No. 709. Oct. 16.—Approving detail plans of bridges to carry the highway over the Guelph and Goderich Ry., at mileage 11.10 and mileage 64.75 from Guelph.

No. 710. Oct. 16.—Approving plans for new abutments to be placed under the existing railway bridge over Napier St., Iberville, Que., for the C.P.R.

No. 711. Oct. 24.—Authorizing the C.P.R. to construct a branch line from near Turbide station on the High Falls branch of the Sault Ste. Marie line.

No. 712. Aug. 29.—Authorizing the James Bay Ry. to carry its line across the Don River

road, lot 7, con. 3, east of Yonge St., York county, by an overhead bridge.

No. 713. Oct. 24.—Authorizing the G.T.R. to cross highways on the level at six points; by under crossings at two points, and by over crossings at four points on its diversion between Newton and Darlington, Ont.

No. 714. Oct. 24.—Granting leave to the city of Calgary to carry light and power wires across the C.P.R. tracks west of 4th St.

No. 715. Oct. 24.—Granting leave to the G.T.R. to construct a branch line through lot 28, con. 6, Chinguacousy tp., Peel County.

No. 716. Oct. 24.—Granting leave to the city of Stratford to lay water mains under the G.T.R. tracks where they cross Nelson St.

No. 717. Aug. 29.—Granting leave to the C.P.R. to cross with its Toronto-Sudbury branch the G.T.R. tracks at Tottenham, Ont., with overhead bridge.

No. 718. Oct. 24.—Granting leave to the C.P.R. to put into use an interlocking plant where the company's line of railway crosses the Trent Valley canal in the village of Ashburnham, Ont.

No. 719. Oct. 24.—Granting the C.P.R. permission to use the additional crossing of the G.T.R. Sarnia line near Toronto Jct., Ont., constructed under the Board's order of July 6, 1904.

No. 720. Aug. 29.—Granting leave to the C.P.R. to cross the G.T.R. tracks at Alliston, Ont.

No. 721. Oct. 27.—Authorizing the G.T.R. to construct a line across Huron St., Collingwood, Ont., to the premises of the Collingwood Shipbuilding Co.

No. 722. Oct. 25.—Directing J. Hardwell, Chief Traffic Officer of the Board, to make full inquiry in regard to the complaints made against the G.T.R. in regard to the distribution and allotment of its freight cars.

No. 723. Oct. 25.—Appointing J. Hardwell, Chief Traffic Officer of the Board, to inquire into question of the carriage of traffic by the C.P.R. in the Province of Ontario, and the distribution of its rolling stock.

No. 724. Oct. 25.—Directing J. Hardwell, Chief Traffic Officer of the Board, to make inquiries in regard to the carriage of goods by the G.T.R. in Ontario, and as to the allotment of its rolling stock for said purposes.

No. 725. Oct. 25.—Directing J. Hardwell, Chief Traffic Officer of the Board, to inquire into the question of discrimination on the part of the C.P.R. in regard to the allotment and use of its rolling stock in Ontario.

No. 726. Oct. 31.—Authorizing the C.P.R. to construct a branch line from Staynerville, Que., to a quarry about four miles distant, on location plans differing from those filed Aug. 29.

No. 727. Sept. 13.—Authorizing the Canadian Northern Ry., under sec. 177 of the Railway Act, to lay its lines and tracks, at rail level, over the lines and tracks of the C.P.R., at Findlay, Man., and directing that the diamond required for the crossing, together with any appliances to be placed on the right-of-way of the C.P.R., shall be provided by and at the expense of the Canadian Northern Ry., which shall pay all costs in connection with the installation of the same, and for the works in connection with the crossing; that four semaphores be placed 1,000 ft. distant from the point of crossing, two on the lines of each company, all semaphores to be interlocked; that the semaphore signals shall always be set against the Canadian Northern Ry. trains except when it is required that they pass over the crossing; that the crossing may be used for a year from Sept. 13, with the protective appliances mentioned, at the expiration of which period an interlocking and derailing device shall be installed by the Canadian Northern Ry., according to plans to be approved by the Board.

No. 728. Oct. 31.—Sanctioning location of the C.P.R. Pheasant Hills branch from mileage 401.5 to mileage 469.8.

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No. 729. Oct. 31.—Sanctioning plans of a bridge to be erected over the highway at station 14+60 near Highlands on the C.P.R. Lachine branch.

No. 730. Oct. 30.—Sanctioning location of the line of the Brandon, Saskatchewan and Hudson's Bay Ry. from a point in sec. 1, tp. 7, range 20, west of the first principal meridian, to a point in sec. 17, tp. 9, range 19, w.p.m.

No. 731. Oct. 31.—Authorizing the Canadian Northern Ry. to cross at rail level the lines of the Qu'Appelle, Long Lake and Saskatchewan Ry., (operated by the C.P.R.) at Prince Albert, Sask.

No. 732. Aug. 29.—Authorizing the James Bay Ry. to construct an under crossing of the tracks of the Midland Division of the G.T.R. near Beaverton, Ont.

No. 733. Nov. 3.—Sanctioning the construction of a bridge over the head race of the Shawenagan Water Power Co., in the St. Maurice River, for the St. Maurice Valley Ry.

No. 734. Nov. 3.—Sanctioning deviation from previously located line of the James Bay Ry. between mileage three and mileage six from Toronto.

No. 735. Sept. 22.—Authorizing the B.C. Electric Ry. to erect and maintain a line of wires for the purpose of conveying electric power across the tracks of the Vancouver, Westminster and Yukon Ry., at Vancouver, B.C.

No. 736. Nov. 3.—Sanctioning location plans of the Midway and Vernon Ry. from Rock Creek to West Bridge, B.C., 10.8 miles.

No. 737. Nov. 3.—Sanctioning deviation from the previously located line of the Vancouver, Victoria and Eastern Ry. from lot 423 to lot 170, tp. 67, Yale District, B.C.

No. 738. Nov. 3.—Granting leave to the town of Sudbury to construct a highway to cross the Stobie branch of the C.P.R. at Louis St.

No. 739. Nov. 3.—Approving of location plans for the Brandon, Saskatchewan and Hudson's Bay Ry., from sec. 18, tp. 6, range 19, west principal meridian, to sec. 36, tp. 6, range 20, w.p.m.

No. 740. Oct. 31.—Sanctioning highway crossings at 16 points on the line of the Guelph and Goderich Ry.

No. 741. Oct. 31.—Amending a clerical error in an order dated Oct. 2, respecting the under crossing of the G.T.R. by the South-West Traction Co.'s line, by substituting St. Thomas for Toronto.

No. 742. Nov. 3.—See under Railway Freight Orders, this page.

No. 743. Nov. 4.—Authorizing the connection between the Lindsay, Bobcaygeon & Pontypool Ry. and the G.T.R., in Lindsay, Ont., and authorizing the opening of the same for the carriage of traffic.

No. 744. Sept. 11.—Authorizing the town of Portage la Prairie, Man., to construct a sewer under the tracks of the C.P.R. and Canadian Northern Ry., on Campbell St.

Sir T. G. Shaughnessy, President, stated Nov. 11 that the reports to the effect that the C.P.R. had protested against the Dominion Government awarding a ten-year contract to the Allan Line for the trans-Atlantic mail contract was incorrect.

Toronto Globe, Nov. 7:—"At this date fifty years ago the Globe was telling its readers they were doomed to disappointment in their expectation that some portion of the railway between Montreal and Toronto would be completed so as to shorten the time for the transmission of the mails between the two cities. During the half century intervening almost the whole of the railway mileage in the Dominion has been constructed, to say nothing of a large amount of double track. The development of the railway system of Canada is one of the best proofs of the enduring prosperity of the country."

Freight Orders by the Railway Commissioners.

The Board of Railway Commissioners issued the following order No. 742, Nov. 3:—In the matter of application of the Columbia and Western Ry. Co. and the C.P.R. Co., for an order under sec. 257 of The Railway Act, 1903, disallowing the tariff of the Red Mountain Ry. filed Oct. 3, 1905, as C.R.C. no. A33, and restoring tariff C.R.C. no. A30, in lieu thereof, and the applicants undertaking by their counsel that, in the event of the Board restoring the said tariff C.R.C. no. A33, or prescribing any rate higher than \$2.50 for the services in the said tariff mentioned, the said applicants will abide by and obey any order of the Board for the payment of such tolls or rates as the Board may fix upon the traffic to which such tariff refers, carried during the suspension of said tariff C.R.C. no. A33, it is ordered ex parte that tariff C.R.C. no. A33 of the Red Mountain Ry. Co. be disallowed, and doth prescribe in lieu thereof tariff C.R.C. No. A30 for the services therein mentioned. This order shall come into force immediately, and remain in force until the hearing of the application, or until Nov. 15.

CARLOAD RATES ON BEANS.

The following order was issued under date of Oct. 31, in the matter of the complaint of the Farmers' Association of Ontario, alleging that railway companies have unreasonably advanced rates on beans in carloads from shipping points in Western Ontario. Upon hearing counsel for complainants, and what was alleged on behalf of the complainants and the railway companies, the evidence adduced and upon the report of the Chief Traffic Officer of the Board, the Board doth order that the mileage rates published by certain railway companies to be charged on grain, in carloads, immediately prior to May 10, 1905, and which, until Jan. 1, 1903, were published to be charged also on beans, in carloads, be again published as the maximum rates to be charged on beans, in carloads, between points in Eastern Canada on any one line of railway subject to the Railway Act, 1903, as to tolls, the rate between any station in Western Ontario and Belleville, Ivanhoe or Gravenhurst, or any intermediate point, not to exceed 15c. per 100 lbs.; except that between points west of Toronto and points east of Belleville and Ivanhoe, the rates on beans, in carloads, shall not exceed those now charged on grain, in carloads, with the addition of 30%, and subject to a maximum rate of 20c. per 100 lbs. to or from Montreal or Ottawa, or intermediate points, the rates at and on each side of Belleville and Ivanhoe to be merged by reduction, if necessary to do so in conformity with sec. 252, sub-sec. 3, of the Act; that to points east and south of Montreal to which through rates are made by railway companies by the addition of so-called arbitraries to the rates to Montreal, the arbitraries charged on grain shall be added to the aforesaid rate or rates to Montreal, except that the through rates so arrived at shall not be lower than the through rates on grain current at the time of shipment, plus 30%; that to points east of the last mentioned arbitrary territory, on the lines of the Canadian Pacific and Intercolonial railways, the rates shall be those published to apply on grain in the higher or non-competitive tariffs of the initial railways, the points to which the rates are affected by water competition, and which are shown in the lower or competitive tariffs, to be placed for the purposes of this order in the groups into which they would fall if shown in the higher or non-competitive tariffs; these rates, and those of the last mentioned arbitrary territory, to be merged by reduction, if necessary to do so in conformity with sec. 252,

sub-sec. 3, of the Act; and the minimum rate to St. John and intermediate points to be, under the present basis of rates, that in force to Intercolonial Ry. stations immediately east of St. John. Provided that no railway company is to be hereby required to charge less rates on beans than it charges on grain between the same points, as shown in its tariffs now on file with the Board.

Railway Equipment Notes.

The G.T.R. has placed an order for six freight locomotives with the Canada Foundry Co.

The Toronto, Hamilton and Buffalo Ry. has received a number of new cars for its Toronto-Buffalo service.

Rhodes, Curry & Co., Ltd., Amherst, N.S., has delivered a snow plough to the New Brunswick Southern Ry.

T. Eaton, of the T. Eaton Co., Toronto, has had a private car, which has been named the Etonia, built in the U.S.

The C.P.R. has placed a further order with the Locomotive & Machine Co., of Montreal, for two 3½ yard Atlantic type steam shovels, and two 2½ yard shovels.

The Alaska Central Rd. expects its car shops at Seward to be completed in Dec., when work on 30 flat cars and 20 ballast cars will be commenced.

The C.P.R., we are officially advised, does not at the present time contemplate the purchase of any rolling stock in the United States as stated in recent press reports.

The Intercolonial Ry. has received two first-class coaches from Rhodes, Curry & Co., Amherst, N.S., and has placed an order for 20 cabooses with that company.

The Locomotive & Machine Co., of Montreal, will begin delivery to the G.T.R., in May, 1906, of the 25 locomotives, the ordering of which was mentioned in our last issue.

The C.P.R. recently received the following rolling stock: one locomotive from the Locomotive and Machine Co. of Montreal; six locomotives, 864 box cars, 72 flat cars and 68 stock cars from its Angus, Montreal, shops; and 34 vans from its Farnham, Que., shops.

At the semi-annual meeting of the G.T.R., recently, the President, Sir C. Rivers Wilson, stated that the company had entered into a contract with the Canada Car Co., Montreal, for 12,000 freight cars and 250 passenger cars, delivery to begin next year, and the work to be distributed over five years.

The Freight Traffic Manager of the G.T.R. stated before the Board of Railway Commissioners recently, that the company had ordered 15 locomotives from the Canadian Locomotive Co., Kingston, Ont.; six from the Canada Foundry Co., Toronto; and 25 from the Locomotive and Machine Co. of Montreal.

The C.P.R. placed the following orders for additional rolling stock recently: ten passenger and freight locomotives at its Angus, Montreal, shops; 15 freight locomotives with the Canadian Locomotive Co., Kingston, Ont.; 35 freight locomotives with the Locomotive and Machine Co. of Montreal, and 20 standard vans with its Farnham, Que., shops.

The legend Erie Rd. will replace that of the Pere Marquette Rd., Cincinnati, Hamilton and Dayton Rd., and Chicago, Cincinnati and Louisville Rd., which lines have been taken over by the Erie Rd. The P. M.R. cars were also marked Trans-Michigan Route; and the cars acquired after the

N. CURRY, President.

N. A. RHODES, Vice-President.

J. M. CURRY, Sec.-Treas.

CAPITAL, \$1,000,000.

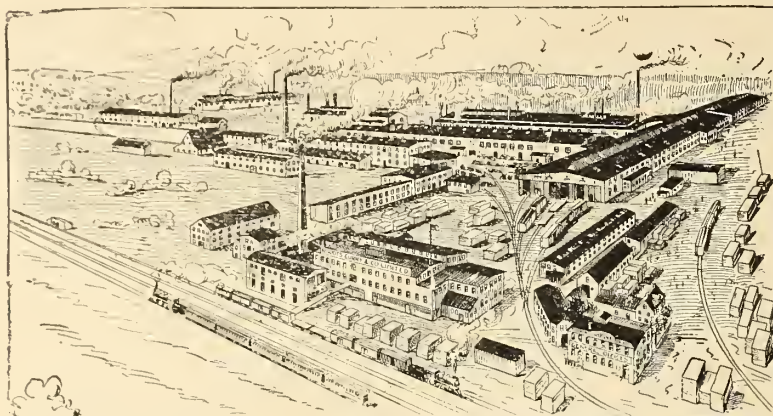
RHODES, CURRY & CO.

AMHERST, NOVA SCOTIA

LIMITED

RAILWAY and STREET CARS

Special Cars for All Purposes.



Car Wheels, Axles, Forgings, Castings, Etc.

CAPACITY PER MONTH

300 Freight Cars	4 Passenger Cars	4 Snow Plows	3,000 Car Wheels
2,500 Car Axles	500 tons Castings	1,000 tons Forgings	

CANADIAN NORTHERN RAILWAY

The New Canadian Highway from Port Arthur, the
Head of Lake Superior, to:



Fort Frances	Emerson	Kamsack	Battleford
Winnipeg	Carman	Neepawa	Lloydminster
Portage La Prairie	Gladstone	Dauphin	Swan River
Brandon	Hartney	Grand View	Erwood
Morris	Carberry	Humbolt	Melfort

Line nearly completed to Edmonton and Prince Albert

PASSENGER Through Tickets can be procured from all Railway Ticket Agents via Chicago, choice of Lines to St. Paul, thence Great Northern or Northern Pacific Railways to Emerson and Canadian Northern Railway to destination.

FREIGHT Traffic arrangements with both the Canadian Pacific and Grand Trunk Railways for the routing of freight via Port Arthur and Canadian Northern Railway.

Freight and Passenger rates, folders and other information
furnished on application to

R. H. BELL
T.F. & P. A., Montreal

WM. PHILLIPS
General Eastern Agent, Toronto

GEO. H. SHAW
Traffic Manager, Winnipeg

JOHNSON'S LIST No. 58

WRITE FOR COMPLETE LIST—TOO LONG TO PUBLISH

Send your requirements to Buy or to Sell.
I Buy for Cash.
If you do not see here what you want,
write; stocks change with every mail.
Fill out my blank forms? It saves time.

For Sale:

ELECTRICAL EQUIPMENT

SNOW PLOWS

- 1—Rotary Peckham-Ruggles, double truck.
- 1—Rotary single truck.
- 1—Maguire-Cummings Sweeper and Plow.
- 1—Nose, Taunton 8 wheel.
- 1— " " " " " "

CARS

- (All styles, new and second hand)
- 5—51 ft. Interurbans, new, now building.
- 2—44 " " complete, choice.
- 7—43 " " combination and straight.
- 3—41 " half open, half closed.
- 4—38 " suburbans.
- 1—38 " combination, choice, like new.
- 6—20-22 ft. city.
- 2—11 bench bodies, glass bulkheads, choice.
- 5—9 bench bodies, and new 21E Brill trucks.
- 6—10, 12, 14 bench, new.
- 1—Sprinkler, 2,500 gallons.

TRUCKS

(All makes, new and used)

- 6—Sets Peckham, 14AXX, 6' 3" W.B.
- 8— " Bemis, No. 44, 4' 6" W.B.
- 5— " Barney & Smith, Class H, 6' 6" W.B.
- 4— " Dupont, single, 8' 6" W.B.
- 6— " Brill, Peckham, single, 6' to 7' W.B.

MOTORS—(Railway)

- 20—Lorain No. 34—50 hp.
- 60—12A, 38B, 49, 56, 3—Westinghouse.
- 50—G. E. 800, 1000, 1200, 57, 58, 52.
- 48—Stanley & Walker, 30, 25, 40, 50 hp.
- 4—80 hp. No. 39 Westinghouse.

Generators, Alternators and Engines, all styles and sizes.

STEAM EQUIPMENT

CARS—(Passenger)

- 5—42-ft. stdg. Coaches seating 52, all new plush, just overhauled. Painted and lettered to suit. (Freight)
- 10—26' 6" Box, 36" gauge.
- 50—40,000 to 80,000 lb. flat and gondola. standard gauge.
- 50—Coal Hopper bottom, standard gauge.

DUMP CARS

(All sizes, new and second-hand)

LOGGING CARS

- 17—8-wheel, 40,000, stdg., Lima.
- 15—8-wheel, 50,000, stdg., Russell.

LOCOMOTIVES

(All sizes standard and narrow gauge)

STEAM SHOVELS

- 1—yd., 40-ton Marion B.
- 1— " 28 " Vulcan, Little Giant, Traction.
- 1— " " Industrial.
- 1— " 45 " Bucyrus.
- 1— " 47 " Marion A. Improved (new).
- 1— " 50 " Vulcan boom.
- 2— " 55 " Vulcan.
- 2— " 60 " Vulcan Giant D, boom (new).
- 2— " 60 " Marion G, 3 engines.
- 2— " 55 " Bucyrus, 3 engines.
- 3— " 70 " Vulcan Giant C, 1903.
- 3— " 79 " Victor.

Rails, turntables, cableways, bridges, cranes and other equipment.

Charles F. Johnson.
CODE, WESTERN UNION 623 ELLICOTT SQUARE
TELEPHONE, 3806R SENECA BUFFALO, N.Y.

amalgamation with the C.H. and D. Ry., were also marked Great Central Route. The cars taken over by the P.M.R. when the Lake Erie and Detroit River Rd. was purchased, may also be re-marked.

The C.P.R. recently completed at its Angus, Montreal, shops, five Wootten type locomotives, for Rocky Mountain traffic. Following are the general dimensions:—

TYPE.—4-6-0, passenger and freight, fitted with simple superheaters.

WEIGHT.—On drivers, 141,000; total, 192,000 lbs.

CYLINDERS.—Diameter, 21 in., by 28 in. stroke.

BOILER.—Wootten; working pressure, 200 lbs.; heating surface, 2,313 sq. ft.; number of tubes, 244 and 22; tubes, outside diameter, 2 in. and 5 in.; tubes, length, 13 ft. 7½ ins.

FIREBOX.—Type, radial stayed, wide; length, 110 ins.; width, 100 ins.; grate area, 76 sq. ft.

TENDER.—Water capacity, 5,000 imperial gallons; coal capacity, 10 tons; wheels, cast steel centres, wrought iron tyres.

SPECIAL EQUIPMENT.—Westinghouse air brakes; C.P.R. standard steel axles; C.P.R. brake shoes; C.P.R. springs; Simplex brake beams.

Canadian Northern Railway Report.

The annual meeting was held in Toronto, Nov. 4. Following is the directors' report, issued over the signature of W. Mackenzie, President.

ed at different dates, secured on separate sections of the railway, the directors, with the consent of the Government of Manitoba, secured the necessary legislation authorizing the issue of a new 4% consolidated debenture bond, guaranteed as to principal and interest by that Province. Provision is made for the exchange of the bonds issued in respect of existing mileage for bonds of the consolidated issue at par, and provision is also made for the guarantee of principal and interest of further issues of bonds at the rate of \$10,000.00 a mile in respect of the construction of future lines which the Legislature of Manitoba may from time to time approve. The result to the holders of the bonds on existing mileage is that instead of holding bonds secured by a charge on a portion of the company's line, they will, upon making the exchange, hold 4% consolidated debenture bonds, secured by a general charge on the company's system within the Province of Manitoba. A reference to the statement of fixed charges will show that a substantial amount of bonds has been exchanged.

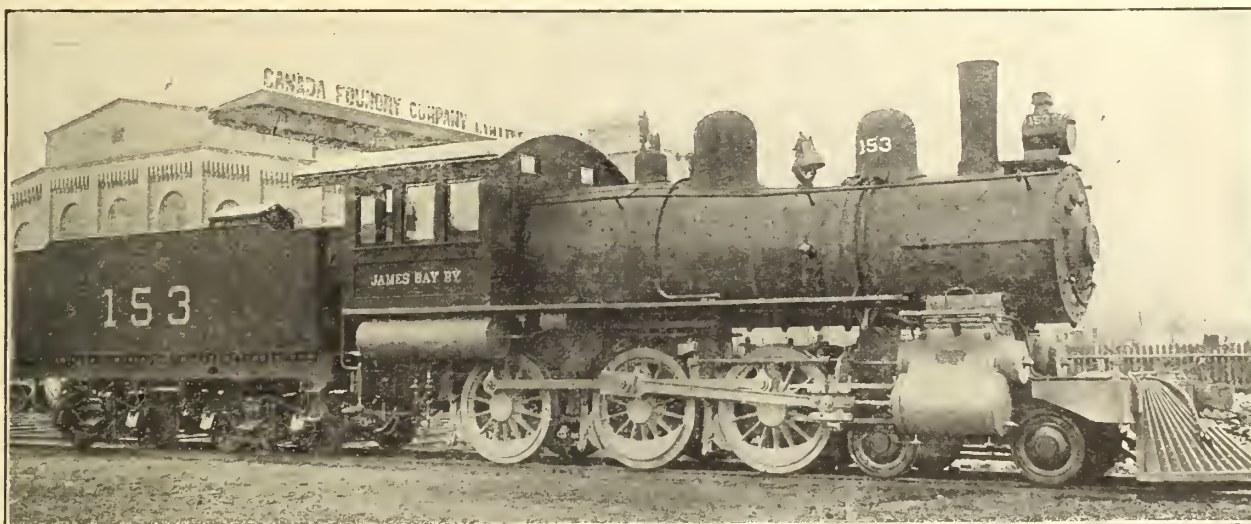
The physical condition of the railway has been fully maintained and improved. During the year the directors found it necessary, in the interest of traffic within the zone of the older parts of the system, to build new stations and sidings, extend the facilities at other

is so situated that it will enjoy a substantial share in the movement of the grain to the lake port. The directors have again to record the fact that business conditions continue good, and that the returns from the marketing of the crop referred to will enhance these conditions to the material advantage of every interest in Canada.

The accounts were submitted by D. B. Hanna, Third Vice-President, as follows:—

CONDENSED GENERAL SHEET, JUNE 30, 1905.

Cost of railway and equipment.....	\$53,533,852.91
GENERAL ASSETS.	
Minnesota & Ontario B'ge Co. 4½% first mortgage debenture bonds.....	\$180,000.00
Capital stock.....	100,000.00
Minnesota & Manitoba Rd. 5% general mortgage bonds.....	250,000.00
Capital stock.....	400,000.00
Lake Superior Terminals Co., Ltd., 5% mortgage gold bonds.....	1,000,000.00
Capital stock.....	500,000.00
Canadian Northern Telegraph Co. 5% general mortgage bonds.....	300,000.00
Capital stock.....	500,000.00
Winnipeg Land Co., Ltd., 5% first mortgage gold bonds.....	300,000.00
Capital stock.....	100,000.00
	<u>\$3,630,000.00</u>



TEN WHEEL LOCOMOTIVE BUILT FOR THE JAMES BAY RY. BY THE CANADA FOUNDRY CO.

The results for the fiscal year ended June 30, 1905, are as follows:—

GROSS EARNINGS.

Passenger traffic.....	\$ 663,935.85
Freight traffic.....	3,061,530.77
Express, mail, telegraph, dining and sleeping cars, including profits from elevators and other subsidiary companies.....	464,745.34
	<u>\$4,190,211.96</u>
Working expenses.....	2,644,729.64
Net earnings.....	\$1,545,482.32
Fixed charges.....	1,128,779.38
Surplus for year.....	<u>\$ 416,702.94</u>

In submitting the figures, the directors are gratified in being able again to report continued and satisfactory progress during the past year. The gross earnings show an increase of \$947,509.27, or 29.22% over the previous year's figures; and the net earnings an increase of \$423,552.06, or 37.75%. The working expenses were 67.05% of the gross earnings of the railway proper, and 63.12% of the gross earnings from all sources.

Four per cent. perpetual consolidated debenture stock to the amount of £600,000 was sold during the year, and the proceeds applied for general purposes. With a view to consolidate the various issues of bonds creat-

stations and industrial sidings, and in other ways enlarge the company's ability to meet the demands of a rapidly growing country. The total mileage under operation, at June 30, 1905, was 1876.4 miles, and the average mileage operated for the fiscal year was 1586 miles. Substantial progress has been made towards the completion of the lines to Edmonton and Prince Albert, and the directors expect by the time the report is issued that the rails will be laid to both places. Every effort will continue to be made to complete and equip the lines in question, so that a permanent service can be established and the fullest advantage taken of moving the traffic ready for the company without unnecessary delay.

A careful inspection of the country adjacent to the lines referred to has recently been made under the direction of the directors, and the report received not only sustains previous reports in respect to the high quality and extent of land from which the railway will draw profitable traffic when settled upon, but confirms the information that the number of settlers already located on lands tributary to the lines is very large, that they are of a superior class, and that the number is increasing daily. The harvest just recently gathered promises to be the largest in the history of Western Canada, and the railway

Taken to acc't. at actual cost to C^o. 1,946,666.66

OPERATING ASSETS.

Material and supplies on hand.....	\$351,882.17
Due from agents and companies, traffic balances, etc.....	935,176.68
Cash on hand.....	1,287,058.85
	<u>374,815.93</u>
	<u>\$57,142,394.35</u>

Capital stock.....	\$30,750,000.00
Four per cent. perpetual consolidated debenture stock.....	4,866,666.66
Bonds.....	15,450,551.93
Car trust obligations.....	3,678,362.26

CURRENT LIABILITIES.

Unpaid pay rolls.....	\$214,204.09
Unpaid audited vouchers.....	443,614.72
Due to other companies.....	683,123.40
Accrued interest on bonds etc., to date.....	77,269.56
	<u>1,418,211.77</u>
Surplus.....	978,601.73
	<u>\$57,142,394.35</u>

FIXED CHARGES FOR YEAR ENDED JUNE 30, 1905.

Bonds guaranteed as to principal and interest by the Government, Manitoba:—

AMOUNT.	ISSUED.	AN. CHARGE.
£ 53,100†	Aug. 1, 1896	\$345,732.13
£ 262,900†	Feb. 1, 1899	
£ 153,700†	Feb. 1, 1899	
£ 6,200†	Nov. 1, 1900	
\$ 101,000†	April 1, 1903	\$231,575.46
£ 1,307,860†	June 30, 1904	
£ 46,300	July 6, 1900	
£ 1,134,300x	Sept. 30, 1901	

THE ALGOMA STEEL CO., LIMITED

SAULT STE. MARIE, ONTARIO

IS NOW BOOKING
ORDERS FOR

STEEL RAILS

FOR LATE SUMMER 1905
AND EARLY SPRING 1906
DELIVERY

Parties intending purchasing will find it to their interest to let us have their specifications at an early date so as to ensure desired deliveries.

Office:

CANADA LIFE BUILDING,
MONTREAL

DRUMMOND, McCALL & CO.

GENERAL SALES AGENTS

CROSSEN CAR MFG. COMPANY OF COBOURG, LIMITED

MODERN HIGH-CLASS

ROLLING STOCK

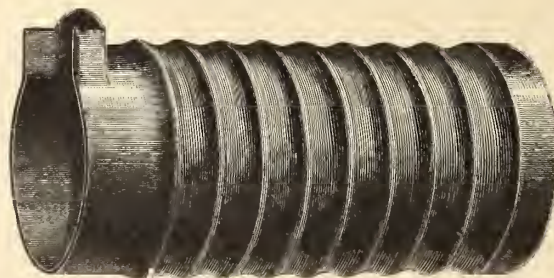
Passenger, Freight and Electric Railway
Ruggles' Rotary Snow Plows

Car Castings, Forgings and Repair Parts

MORISON Suspension Furnaces

The universally satisfactory
record of "THE MORISON"
proclaims it the best
furnace made.

With Plain Ends or Flanged
to any required shape.



For Land and Marine
— Boilers —

Uniform Thickness, Easily
Cleaned, Unexcelled for
Strength, Unsurpassed
for Steaming Capacity.

MANUFACTURED BY

THE CONTINENTAL IRON WORKS, WEST AND CALVER STS.,
BOROUGH OF BROOKLYN,
Near 10th and 23rd Street Ferries. **NEW YORK**

Sole Canadian Agent—MR. GEORGE HOLLAND, M.C. Soc. C.E., P.O. Box 529, MONTREAL

Guaranteed as to principal and interest by Dominion Government:—

£ 189,657 July 29, 1903 \$27,690.00

PERPETUAL CONSOLIDATED DEBENTURE STOCK.

£ 400,000 June 30, 1903 \$77,866.66
£ 600,000 Feb. 18, 1905 26,604.43*

\$104,471.09

LEASED LINES, ETC.

Northern Pacific and Manitoba Ry... \$210,000.00
Minnesota and Manitoba Rd..... 13,960.00
Interest on equipment leases..... 195,350.70

\$1,128,779.38

†To be exchanged at par for consolidated debenture bonds on application by holders. ‡Consolidated.
*Ontario division. *For part of year only.

GROSS EARNINGS.

Class.	1905	Per Cent.
Passenger.....	\$ 663,935.85	15.85
Freight.....	3,061,330.77	73.06
Mails.....	20,962.58	00.50
Express.....	35,199.67	00.84
Miscellaneous.....	408,583.09	9.75

Total.....\$4,190,211.96 100.

OPERATING EXPENSES.

Class.	1905	Per Cent.
Maintenance of ways and structures.....	\$ 557,260.80	21.07
Maintenance of equipment.....	410,706.89	15.53
Conducting transportation.....	1,515,299.72	57.29
General expenses.....	161,462.23	06.11

Total.....\$2,644,729.64 100.

SUMMARY OF EARNINGS AND EXPENSES

Class.	1905	Per cent.
Gross earnings.....	\$4,190,211.96	
Operating expenses.....	2,644,729.64	63.12
Net earnings.....	1,545,482.32	36.88

DESCRIPTION OF FREIGHT CARRIED.

	1905	1094
Flour, sacks (100 lbs. each)	414,824	282,214
Grain, bushels.....	9,681,829	9,992,195
Live stock, head.....	20,299	25,188
Logs and lumber, feet.....	141,614,000	117,517,000
Firewood, cords.....	176,365	171,714
Fish, tons.....	5,770	4,619
Immigrants' effects, cars.....	1,558	1,113
Building material (lime, stone, brick, sand, etc.)		
cars.....	5,968	2,602
Miscellaneous, tons.....	459,972	308,347

PASSENGER TRAFFIC.

	1905	Increase or Dec.	Per Cent.
No. passengers carried.....	486,591	128,458	35.87
No. pass. carried 1 mile	28,883,378	7,046,971	32.27
Earnings per passenger per mile..... cts.	02.591	.124	05.24
Earnings per traffic train mile..... cts.	92.61	05.91	06.81
Total passenger earnings	748,564.40	189,090.29	33.79

FREIGHT TRAFFIC

	1905	Increase or Dec.	Per Cent.
No. tons carried.....	1,368,896	259,311	23.37
No. tons carried 1 mile	385,834,234	91,335,559	31.01
Earnings per ton per mile..... cts.	0.793	d.026	03.17
Earnings per traffic train mile..... \$	2.04.68	d0.24.47	10.68
Total freight earnings.....	\$ 3,061,530.77	649,147.26	26.91

PASSENGER AND FREIGHT.

	1905	Increase or Dec.	Per Cent.
Gross earnings per mile of road.....	\$2,641.37	238.66	09.93
Operating expenses per mile of road.....	\$1,667.55	96.15	06.12
Net earnings per mile of road	\$ 973.82	142.51	17.14
Amount required per mile of road to pay fixed charges, including leased lines.....	\$ 711.71	114.85	19.24

TRAIN AND CAR MILEAGE.

	1905	Increase or Dec.	Per Cent.
Mileage of passenger trains	808,282	163,029	25.26
Mileage of freight trains.....	1,495,856	443,123	42.09

EXPENSES PER TRAFFIC TRAIN MILE.

	1905	Increase or Dec.	Per Cent.
Maintenance of way and structures..... cts.	21.18	d3.91	13.92
Maintenance of equip't cts.	17.82	1.37	02.12
Conducting transport'n cts.	65.76	d3.43	04.95
General expenses..... cts.	07.01	d3.15	31.00
Total.....	\$ 1.14.77	d10.12	08.10

Equipment, June 30, 1905; locomotives, 106; sleeping cars and dining cars, 7; passenger coaches, 47; baggage, mail and express cars, 15; business cars, 5; freight, refrigerator and stock cars, 4,154; conductors' vans, 58; boarding, tool, auxiliary cars and steam shovels, 70.

The number of miles of railway owned and operated, including leased lines, at June, 1905, was as follows:—

Province of Ontario.....	353.7
Province of Manitoba.....	1180.54
Province of Saskatchewan.....	298.46
State of Minnesota.....	43.7
	1876.4

Average operated for fiscal year, 1586 miles.

Following are the officers and directors for the year current:—President, W. Mackenzie; Vice-President, D. D. Mann; Chief Solicitor, Z. A. Lash; other directors, F. Nicholls, J. M. Smith; Third Vice-President, D. B. Hanna.

TRADE AND SUPPLY NOTES.

The matter which appears under this heading is compiled, in most cases, from information supplied by the manufacturers of, or dealers in, the articles referred to, and in publishing the same we accept no responsibility. At the same time we wish our readers to distinctly understand that we are not paid for the publication of any of this matter, and that we will not consider any proposition to insert reading matter in our columns for pay or its equivalent. Advertising contracts will not be taken with any condition that accepting them will oblige us to publish reading notices. In other words, our reading columns are not for sale, either to advertisers or others.

The John Bertram & Sons Co., Dundas, Ont., has passed a by-law increasing the number of its directors from five to seven.

The Westinghouse Rotary Converters are described in special publication no. 7038, issued by the Westinghouse Co.'s publishing department, Pittsburg, Pa.

William Jessop & Sons, Ltd., of Sheffield, Eng., whose Canadian offices are in Bay St., Toronto, has issued a new catalogue giving information about, and prices of, its tool steel.

C. B. Adams, heretofore General Superintendent of Transportation, Wabash Rd., has been appointed General Superintendent Safety Car Heating and Lighting Co., with headquarters at St. Louis, Mo.

W. W. Butler, 2nd Vice-President of the Simplex Railway Appliance Co., has been elected 2nd Vice-President of the American Steel Foundries, to fill vacancy caused by resignation of W. D. Sargent of New York. Mr. Sargent continues a director, having served on the Board since the organization of the company.

The Canadian Fairbanks Co. has been appointed sales agent for the Jno. Bertram & Sons Co., Ltd., Dundas, Ont., manufacturers of machine tools. The Niles-Bement-Pond Co., of New York, has recently acquired an interest in the Bertram Co., thereby affording additional facilities. The Dundas plant is being considerably extended.

Borden & Selleck Co., 48 Lake St., Chicago, Ill., have issued booklet no. 6, about conveyers, elevators, and freight handling machinery, for carrying and elevating boxes, barrels, bales, packages, etc. Among other things, it contains illustrated details of a reversible travelling platform freight conveyor installed in the Minneapolis, St. Paul and Sault Ste. Marie transfer warehouse at Gladstone, Mich.

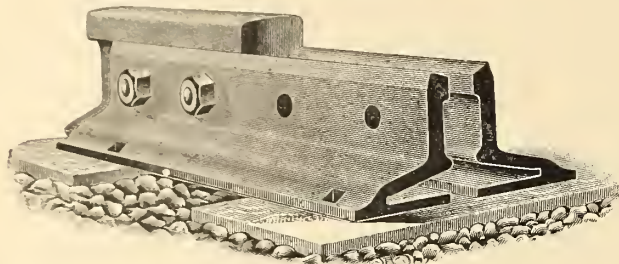
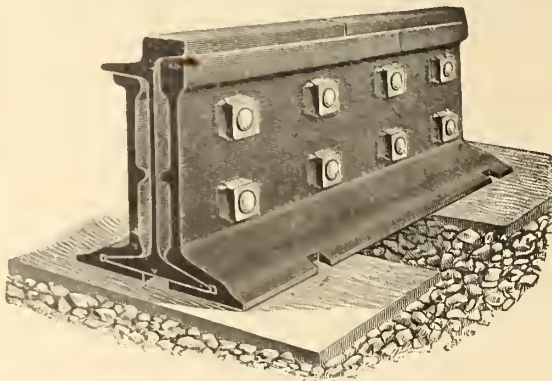
The Rail Joint Co. has been organized by filing at Albany, N.Y., a certificate of incorporation, with a capital stock of \$1,500,000, of which \$1,000,000 is common stock and \$500,000 preferred stock. The officers are, President, F. T. Fearey; Vice-Presidents, L. F. Braine and P. Holbrook; Treasurer, F. C.

Runyon; Secretary, B. Wolhaupter. This company will take over the business and properties of The Continuous Rail Joint Co. of America, The Weber Railway Joint Manufacturing Co., and the Independent Railroad Supply Co.

The American Locomotive Co. has issued a booklet illustrating and describing the Mallet Articulated Compound Locomotive, the largest locomotive ever built, which was constructed by the company for the Baltimore and Ohio Rd., and exhibited at the Louisiana Purchase Exhibition at St. Louis. A short description and an illustration of the locomotive appeared on pgs. 229-231 of our issue of June, 1904. The booklet describes the locomotive in detail, while the special features of the design are illustrated, and the advantages of this type of construction for very heavy units are outlined. In addition to this, four outlined designs are presented, indicating the application of the Mallet articulated principle to locomotives ranging in weight from 261,000 to 54,000 lbs. The booklet concludes with comments from the technical press, among which is an article specially prepared by J. E. Muhlfeld, General Superintendent of Motive Power Baltimore and Ohio Rd., and formerly Superintendent of Motive Power and Machinery Intercolonial Ry., Moncton, N.B., which states his experience with the very heavy locomotive.

A. J. Pitkin, President American Locomotive Co., died at his home in New York city Nov. 16, after an illness of several months, the serious character of which was not appreciated or widely known among his closest friends, and the news of his death was a surprise to all. He was born at North Hampton, Ohio, in 1854. At the age of 17 he entered apprenticeship in the stationary engine works of the Webster, Camp & Lane Machine Co., of Akron, Ohio. He spent a year in the locomotive repair shops of the Cleveland, Akron & Columbus Rd., after which he entered the drawing office of the Baldwin Locomotive Works, for which he had prepared by diligent evening study. From this time he gave his attention to locomotive work. After five years at the Baldwin Works he became chief draughtsman of the Rhode Island Locomotive Works, and two years later, in 1882, was appointed Mechanical Engineer of the Schenectady Locomotive Works. In two years he became Superintendent of the works. Upon the death of the President, E. Ellis, Mr. Pitkin was made Vice-President and General Manager, and from that time developed the commercial as well as the manufacturing features of the business. Upon the formation of the American Locomotive Co., Mr. Pitkin naturally became its 1st Vice-President, and upon the death of S. R. Callaway, on June 1, 1904, Mr. Pitkin was made President. Mr. Pitkin is entitled to large credit for the development of the locomotive to its great power. He was exceedingly active in the introduction of fire-boxes over locomotive frames, and in the increase of steaming capacity through the introduction of larger boilers. To him was due the greatest step in the marked advance in the capacity of passenger locomotives which began 12 years ago, and reached its present height of development in the very large passenger locomotives of the prairie type on the Lake Shore & Michigan Southern Ry. One of the last important developments which received his careful attention, was the application of Walschaert valve gear, and the introduction into the United States of the principle of the Mallet compound, which he considered a distinct step in advance in locomotive designing. His unswerving efforts to perfect locomotive construction, and his careful progressiveness, have done much to place the American locomotive where it stands to-day.

Railroad Essentials.



The day has passed when men of finance are willing to place their money into bad material in railroad construction only to be compelled to replace it by renewals or reconstruction after very little use. Many of the best and most successful steam and electric railroads use the rail joints of the Continuous patent type for standard track work, insulated joints, step joints, and electric bonding joints for the reason that experience has proven it to be the best appliance of its kind ever put upon the market, as evidenced by the fact that it is used in all parts of the world on over 20,000 miles of track.

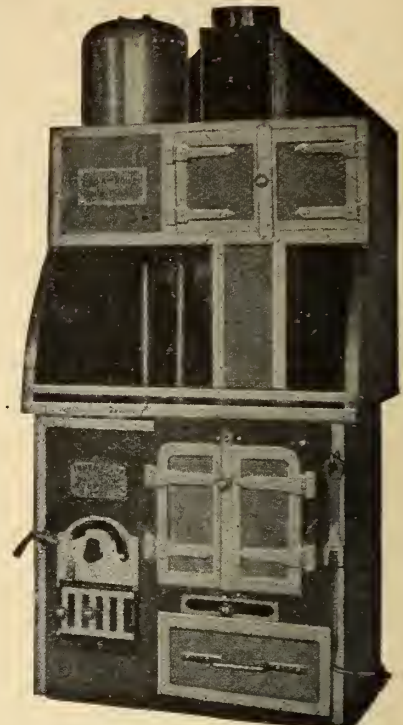
MADE BY

The Continuous Rail Joint Company of Canada

WM. E. CLARK, Manager.

216 Board of Trade Bldg., - MONTREAL, CANADA

Medals awarded at Paris and Buffalo Expositions.



STEEL RANGES

FOR
R
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DINING
PRIVATE
OFFICIAL
TOURIST
BOARDING

CARS

Also for Hotels, Steamboats and Private Families.
Cooking apparatus of all kinds.
Catalogues on application.

GEO. R. PROWSE — 208 McGill Street
MONTREAL

TORONTO BOLT AND FORGING CO.

LIMITED

Manufacturers of

BOLTS AND NUTS

OF ALL KINDS, INCLUDING

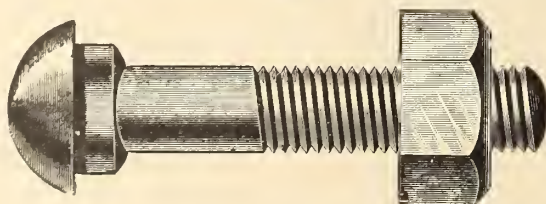
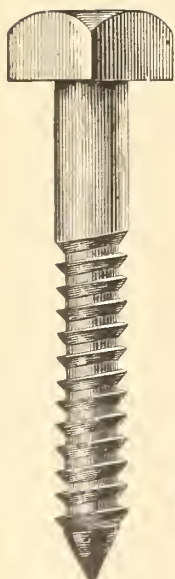
Track Bolts

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G.T.R. Betterments, Construction, Etc.

Turcot Roundhouse and Yards.—The work in connection with the erection of the roundhouse at Turcot, Montreal, has been completed, and the fitting up of the house is in progress. It will accommodate 40 locomotives, and is so built that accommodation for an additional 20 can be added. The turntable is 100 ft. long. A yard is being laid out adjoining to have accommodation for 2,500 cars and so arranged that it can be further extended when necessary.

Hotel at Rideau Lake.—We are officially advised that the G.T.R. management has no information in reference to the erection by it of an hotel in the Rideau Lakes district, Ontario, and that the officials do not know how the report could have originated.

Toronto Union Station.—Agents of the G.T.R. are negotiating with the owners of the various properties along Front St. required for the new Union Station site. Some difficulty is being experienced with a number in arranging terms. The company has purchased the land now used by the Hendrie Cartage Co., for yard and stable purposes in connection with the new station. It is expected that it will be necessary in a number of cases to fix by arbitration the value of the land taken.

Ottawa Division.—The G.T.R. has commenced the work of strengthening the bridges on the Ottawa Division (formerly the Canada Atlantic Ry.), and otherwise improving the roadbed.

Newton-Darlington Division.—In connection with the construction of the Newton-Darlington division, which was undertaken to improve the roadbed for the double track between Montreal and Toronto, the Board of Railway commissioners has approved of a number of highway crossings.

Brantford Improvements.—The main line deviation through Brantford, Ont., has been opened for traffic. The old route was via Harrisburg and Paris, either of which were about seven miles off, and Brantford was reached by branch trains. The new route necessitated the construction of a piece of line, 4.05 miles in length, from Lynden to a junction with the branch line from Harrisburg, and the strengthening, practically the reconstruction of 4.58 miles of the Harrisburg branch, and the almost entire reconstruction of the 7.80 miles between Brantford and Paris. From Lynden to Paris by the new route is 16.42 miles, while by the old route it is 13.01 miles. The old route will not be entirely abandoned, but will be used for freight trains and some local traffic. At Brantford a new station has been built, bridges reconstructed and many other improvements made. The opening of the line was made the occasion of a public demonstration, at which C. M. Hays, second Vice-President and General Manager, and other officials, together with representatives from various cities and towns of Ontario were present as the guests of the city of Brantford.

New Station at Stratford.—W. G. Brownlee, Superintendent Middle Division, is quoted by the Mayor of Stratford as having stated that the erection of a new station would be proceeded with soon, if the city would allow the closing of a portion of Shakespeare St., and that when built the new station would not be inferior to that at Brantford.

London Improvements.—The completion of the second track work in the vicinity of London, Ont., will be held over until it is decided as to the improvements to be made in London. A London paper says two plans are under consideration. The one plans the raising of the grade between Hyde Park and London, the widening of the bridge near the electric power house for a second track, and the elevation of the tracks in the city so as to

do away with the present level crossings. The second plan involves the construction of subways to do away with level crossings, but both include the erection of a new station, and the re-arrangement of terminal facilities. Nothing, however, is likely to be finally adopted until early in 1906.

St. Clair Tunnel.—Reports from Sarnia, Ont., state that it is understood that the delay in going on with the provision of electric transit through the tunnel is because the company is anxious to investigate the feasibility of operating it by power generated at Niagara Falls.

Port Huron Shops.—We were advised Nov. 2, that it is not at present contemplated to make any addition to the company's shops at Port Huron, Mich.

Railway Finance, Meetings, etc.

Atlantic and Lake Superior Ry.—In the case of the A. and L.S. Ry. to recover \$1,500,000 from the Dominion Government for damages alleged to have been sustained, the Exchequer Court has ordered the company to furnish \$500 security for costs, and to produce its books. In the event of this not being done the case will probably be dismissed for failure to prosecute.

Baie des Chaleurs Ry.—The Quebec Courts have given a decision to the effect that Hon. J. R. Thibadeau is not qualified to act as President, as he did not hold any stock in the company at the time of his election in May. C. N. Armstrong was elected Vice-President at the same meeting.

Bay of Quinte Ry.—Following are the officers and directors for the current year: President and General Manager, E. W. Rathbun; Secretary-Treasurer, C. A. Millener; Auditor, G. W. Wright; other directors: Mrs. B. Rathbun, H. M. Rathbun. These officers and directors also act for the Thousand Islands Ry.

Boston and Malne Rd.—The 72nd annual report for the year ended June 30, showed: Gross earnings from operation, \$36,213,245.50; operating expenses (including \$807,781.58 for new equipment), \$26,619,740.19; net earnings, \$9,593,505.31; income from other sources, \$587,588.96; net income, \$10,181,094.27; taxes and fixed charges, \$8,161,236.84; surplus, \$2,019,857.43; sinking fund payments, \$136,285; available for dividends, \$1,883,572.43; dividends paid, \$1,806,646; balance carried to contingent fund, \$76,926.43. The company operates 2,286 miles of line, of which 38 miles are in Canada. The Canadian line is the Massiwiippi Valley Ry. from the Vermont-Quebec border to Lime Ridge, Que., but no separate report is issued for it. The capital stock of the M.V. Ry. is given as \$800,000; the table showing stocks and bonds owned shows that the company holds 373 shares of the stock, valued at \$3,000, and \$103,000 of bonds of the Montreal and Atlantic Ry.

Canada Eastern Ry.—An inquiry into the claim of the Alex. Gibson Railway and Manufacturing Co. against the Dominion Government for \$17,000, balance of the purchase price of the line formerly known as the Canada Eastern Ry., has been concluded at Fredericton, N.B. The Treasurer and Chief Accountant of the I.C.R. represented the Government in the inquiry, the questions in dispute being almost entirely matters of account.

Canadian Northern Ry.—An issue of $4\frac{1}{2}\%$ first mortgage gold bonds to the amount of \$1,000,000 has been made, by the Imperial Rolling Stock Co., on account of further rolling stock for the C.N. Ry. The interest is payable April 1 and Oct. 1, in Toronto, New York and London, Eng., and the principal at Toronto and London, Eng. The bonds mature serially from Oct. 1, 1906, to Oct. 1, 1915, and are known as Series K.

Application has been made to the London, Eng., stock exchange to list a further issue of £577,620 of 4% first mortgage consolidated debentures of the C.N.R., the principal and interest of which is guaranteed by the Manitoba Government.

The sum of £1,240,000, 4% perpetual consolidated debenture stock of the C.N.Ry., is being offered on the London, Eng. market at 99%, by Sperling & Co.

Canadian Pacific Ry.—We are officially informed that the press reports to the effect that the C.P.R. has purchased the Bellingham Bay and British Columbia Ry., in Washington, U.S., are incorrect.

Chateaugay and Northern Ry.—An action has been entered in the Quebec Courts by the legatees of the Bennett estate and other property owners in Montreal to recover an aggregate of \$51,000 for damages for alleged breach of agreement. The plaintiffs allege that their properties were expropriated in 1896 for the purposes of constructing an electric railway, and that after the building of the same to Bout de l'Isle, permission was given the C. and N. Ry., now operated by the Great Northern Ry., to construct a steam railway.

Dominion Atlantic Ry.—The papers transferring the line, property, rights and franchises of the Midland Ry. of Nova Scotia to the D.A. Ry. Co., have been signed in Montreal, and the new owners have taken possession. The purchase price of the property is stated to be \$1,250,000.

Erie Rd.—The directors of the Erie Rd. have approved of the purchase of a controlling interest in the Cincinnati, Hamilton and Dayton Rd. This purchase includes the Pere Marquette system, which owns the Lake Erie and Detroit River Ry. in Canada. The combined lines will be operated as the Erie Rd.

G.T.R. Subsidiary Companies.—The directors of the several subsidiary companies met after the annual meetings in Detroit and elected officers. C. M. Hays was elected President and General Manager, Grand Trunk Western Ry., Detroit, Grand Haven and Milwaukee Ry., Toledo, Saginaw and Muskegon Ry.; and President Chicago, Detroit and Canada G.T. Jet. Ry., Michigan Air Line Ry., St. Clair Tunnel Co. E. H. Fitzhugh was elected Vice-President Chicago, Detroit and Canada G.T. Jet. Ry., and the St. Clair Tunnel Co. J. H. Muir was elected Secretary and Treasurer of the G.T. Western Ry.; D., G.H. and M. Ry.; T., S. and M. Ry.; and Secretary of the other three companies, F. Scott being appointed Treasurer, and F. H. McGuigan, Manager of the St. Clair Tunnel Co.

Kaslo and Slocan Ry.—Following are the officers and directors for the current year: President, H. A. Kennedy; Vice-President, A. H. MacNeill; Secretary and Treasurer, W. H. Fortier; Manager, R. C. Morgan; other director: P. H. Walsh. These officers also act for the Bedlington and Nelson Ry., and the Kaslo and Lardo-Duncan Ry.

Kootenay Valley Ry.—Following are the officers and trustees for the current year ending in April: President, L. W. Hill; Vice-President, H. A. Kennedy; Secretary, W. H. Fortier; other trustees: M. J. Gordon, R. C. Morgan. Treasurer, E. Sawyer.

New Brunswick and Prince Edward Island Ry.—Following are the officers and directors for the current year: President, Hon. J. Wood; Secretary, H. C. Read; other directors: C. Fawcett, J. L. Black, W. Ogden, G. Campbell, H. M. Wood; Treasurer and Manager, F. C. Harris.

North Shore Power, Ry. and Navigation Co.—Following are the officers and directors for the current year: President, Jas. Clarke; Vice-President, Wm. Clarke; Resident Director and Secretary-Treasurer, Thos. Mcaney.

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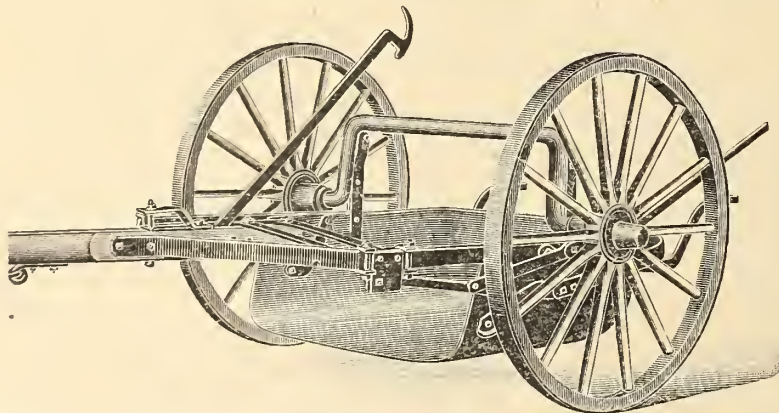


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ATLANTIC TRANSPORT LINE.

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Abel I. Culver, J. W. Burdick,
2nd Vice-President. Pass. Traffic Man.

A. A. Heard,

Gen. Passenger Agent, - - ALBANY, N.Y.

Quebec Southern Ry.—The Exchequer Court at Montreal decided to accept the bid of Senator Beique, of \$1,051,000 for the railway which was offered for sale by tender. G. G. Foster on behalf of clients objected, and subsequently an appeal against the order of the Court was entered on behalf of G. A. D. Morgan, another bidder. The appeal will be heard in Feb., 1906. Local reports state that Senator Beique was bidding on behalf of the Delaware and Hudson Co. Other interests reported as bidding were the G.T.R. and the New York Central Rd.

Stanstead, Shefford and Chambly Ry.—Following are the officers and directors for the current year:—President, Hon. S. W. Foster; Vice-President, E. H. Fitzhugh; other directors: Hon. E. C. Smith, C. M. Hays, G. C. Jones, G. Stevens, G. E. Robinson, A. H. Moore, J. P. Noyes. Secretary-Treasurer, C. H. Parmelee, Waterloo, Que.; Assistant Secretary-Treasurer, W. H. Chaffee. The annual meeting was held at Waterloo, Que., Nov. 8. The company's line is leased for 99 years to the Central Vermont Ry., and no separate report is issued. The annual meeting is a purely formal gathering in order to keep the charter alive.

Temiscouata Ry.—Traffic receipt for Oct., \$13,202.01, against \$12,446.38 for Oct., 1904.

Temiskaming and Northern Ontario Ry.—The Provincial Treasurer of Ontario who went to London, Eng., to arrange for placing a \$7,000,000 bond issue to repay loans, and provide for further construction of the line, was advised that the money market was not favorable for such an issue. It was decided to renew the loans with the banks for a further period at 4%. The details of the negotiations will be placed before the legislature at its next session.

Thousand Islands Ry.—See Bay of Quinte Ry.

Toronto, Hamilton and Buffalo Ry.—Estimated earnings for Oct., \$66,901.86 against \$62,230.92 for Oct., 1904.

Vancouver and Lulu Island Ry.—The Board of Railway Commissioners were asked Dec. 15 to approve an agreement dated April 19, between the C.P.R., and the B.C. Electric Ry. Co., the V. and L.I.R., and Lord Strathcona and R. B. Angus, trustees, respecting the lease of the V. and L.I.R., by the C.P.R. to the B.C.E. Ry.

Canadian Northern Ry.—Tracklaying on the Canadian Northern Ry. main line was completed into Edmonton, Alta., Nov. 24, when the Lieutenant-Governor of Alberta drove the last spike, a silver one. D. D. Mann, Vice-President of the C.N.R., was present, and the day was celebrated as a public holiday. The main line now extends from Port Arthur to Edmonton, a total distance of 1,263 miles, and runs through west of Winnipeg, Portage la Prairie, Gladstone, Dauphin, Grand View, Kamsack, Quill Lake, Elbow, North Battleford, and thence through a newly settled country to Edmonton. The section from Grand View to North Battleford is also through a newly settled country. D. D. Mann, in a recent interview said, that the company would probably construct some 40 miles westerly from Edmonton, but that it might be years before they went further. (Nov., pg. 531).

The C.P.R. started early in Nov. the hauling of wheat by the all-rail route from Fort William, Ont., to West St. John, N.B., for export during the latter part of Nov. and early in Dec. Press reports stated that about 2,000,000 bush. were being forwarded in this way, and that it was to be used as ballast for the earlier steamers from the winter port. It is said that the rate from Fort William to West St. John is about 16c. per 100 lbs.

MAINLY ABOUT PEOPLE.

Lady Van Horne and Miss Van Horne, returned to Montreal from St. Andrews, N.B., Nov. 4.

A fire at the residence of M. H. Folger, Kingston, Ont., Nov. 15, did damage to the extent of \$5,000.

F. A. Cheney, formerly Manager Niagara, St. Catharines and Toronto Ry., died at St. Catharines, Ont., Oct. 26.

G. M. Bosworth, Fourth Vice-President C.P.R., and Mrs. Bosworth, returned to Montreal from England Nov. 3.

Mrs. Archibald, mother of P. S. Archibald, Consulting Engineer, Moncton, N.B., died at Antigonish, N.S., Nov. 7.

N. A. Rhodes, of Rhodes, Curry & Co., Amherst, N.S., is one of the partners in an 11,000 acre ranch in Saskatchewan.

W. G. Ross, Managing Director Montreal Street Ry., has been elected President of the Canadian Amateur Skating Association.

Dr. W. E. Smith, for over 28 years physician for the Canadian Division, Michigan Central Rd., died at St. Thomas, Ont., Nov. 8.

Press reports state that A. B. Morine, K.C., will in the near future vacate his position as Solicitor of the Reid Newfoundland Co.

F. P. Smith, Secretary Richelieu and Ontario Navigation Co., has been re-elected Secretary of the Victoria Hockey Club, Montreal.

The residence of Thos. Malcolm, railway contractor, Edmundston, N.B., was entered by burglars early in Nov., and considerable property taken.

F. E. Fauquier, contractor, Ottawa, is to be married on Dec. 27 to Miss Ethel White, eldest daughter of the Comptroller of the Northwest Mounted Police.

J. A. Goodearle, Assistant General Manager Thousand Islands and St. Lawrence Steamboat Co., was married at Kingston, Ont., Nov. 7, to Miss N. M. Watson.

M. J. Haney, contractor, has returned to Toronto from a two months' trip through Manitoba, Saskatchewan, Alberta and B.C., in company with Cawthra Mulock.

J. G. McDonald, who has been engaged in contracting work on the Halifax and South Western Ry., has returned to his home at Middle Coverdale, N.B., owing to ill-health.

F. W. Flanagan, General Passenger Agent, C.P.R., London, Eng., was entertained at dinner by a number of railway and shipping men at St. Stephen's Club, Westminster, Nov. 7.

W. Langford, Master Mechanic and Superintendent Montmorency Division, Quebec Ry., Light and Power Co., was presented with a fur coat by the employees of the division Nov. 17.

Miss H. M. F. Cumberland, daughter of Barlow Cumberland, Vice-President Niagara Navigation Company, was married at Port Hope, Ont., Nov. 1, to H. C. Wotherspoon, Montreal.

W. E. Mellen, of the G.T. Pacific Ry. engineering staff at Montreal, has been appointed to the staff of C. H. Schlacks, Vice-President Denver and Rio Grande Rd., Denver, Col.

H. J. Beemer, railway contractor, who constructed the Ottawa, Northern and Western Ry., and the Interprovincial Bridge at Ottawa, returned to that city from the U.S. early in Nov.

G. B. Ussher, for many years baggage master G.T.R. and Wabash Rd., St. Thomas,

Ont., died recently, aged 68. He was a brother of C. E. E. Ussher, General Passenger Agent, C.P.R.

H. E. C. Carry, late of the C.P.R. field engineering staff, was married at Vancouver, B.C., Nov. 18, to the widow of the late Senator Reid, of Quesnelle, B.C. They will reside at Vancouver.

J. Earls, who recently retired from the Secretary-Treasurership of the Canadian Freight Association, was presented on Nov. 23, with an address and a cheque by members of the Association.

Miss B. White, daughter of F. H. White, Superintendent of the Anglo-American Telegraph Co.'s St. Pierre station, was married at Lamaline, Nfld., Nov. 8, to H. Hagan of the Cable Co.'s staff there.

Miss E. Smallman, daughter of T. H. Smallman, Vice-President London Street Ry., was married in London, Ont., Nov. 8, to Capt. C. K. Morgan, of the Army Medical Corps, stationed at Cairo, Egypt.

G. H. Ham, of the head office staff, C.P.R., is expected back in Montreal from England early in Dec. He was reported to have considerably improved in health at the time of leaving England, Nov. 21.

Ewan Mackenzie, contractor, formerly connected with the Toronto Ry., is one of the provisional directors of the Cobalt Development Co., which has been incorporated under the Ontario Companies' Act.

The headquarters staff of the C.P.R. in London, Eng., recently presented a silver salver to Archer Baker, in connection with his promotion to the position of European Traffic Manager of the company.

Capt. W. Richards, President Charlotte-town Steam Navigation Co., has returned to Biddeford, P.E.I., from England, where he went to place an order for a steamboat for the Point du Chene-Summerside run.

J. A. Gemmell, barrister and Parliamentary agent, who died at Ottawa, Nov. 7, was director and Vice-President of the Great Northwest Central Ry.; director of the B.C. Southern Ry., and of the Trans-Canada Ry.

The Minister of Marine sailed from New York, Nov. 21, for a trip to England and France. During this trip to England he will discuss with the British Admiralty the question of establishing a naval militia for Canada.

J. C. Whitehelo, C.P.R. ticket agent, Parry Sound, Ont., and wife, were among those who took part in the Canadian Ticket Agents' Association's trip to Portland, Me. Their names were inadvertently omitted from our last issue.

G. C. Gibbons, K.C., London, Ont., has been appointed chairman of the Canadian section of the International Waterways Commission, succeeding J. P. Mabee, K.C., appointed a judge of the Ontario High Court, Chancery Division.

Hon. A. G. Blair has resigned the position which he took in connection with a manufacturing company after giving up the chairmanship of the Board of Railway Commissioners, and it is reported that he will engage in law practice at Ottawa.

C. W. Spencer was presented recently with an address and a loving cup by the railway telegraphers of the C.P.R. Eastern Division, on leaving that company's service to become General Manager Mackenzie, Mann Ry. system, eastern lines.

Jas. Orr, who died at Victoria, B.C., Nov. 6, made a number of exploratory surveys for the B.C. Government for railways in the north Thompson and Fraser River valleys, in 1865, and was an assistant paymaster on C.P.R. construction in B.C.

BIG GAME

MOOSE, CARIBOU, DEER

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NEW BRUNSWICK—Sept. 15th to Nov. 30th.

NOVA SCOTIA—(Moose only)—Oct. 1st to Jan. 1st.

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The list of subscribers to the new Alexandra Hospital at Montreal includes the following:—Jas. Ross, \$25,000; G.T.R. and C.P.R., \$5,000 each; Sir T. G. Shaughnessy, Sir H. M. Allan, C. R. Hosmer, R. Reford, \$1,000 each; H. Paton, \$500.

R. Reford, of the Robt. Reford Co., Montreal, has contributed \$2,000 to provide an annual prize for the clear, reverential and devout rendering of the Anglican Church service by students and probationers of the Montreal Theological College.

J. H. Dull, who recently resigned his position as G.T.R. Trainmaster at Stratford, Ont., has gone to Detroit to reside for the present. He was presented with a cabinet of silver, a gold locket and chain, and a diamond stud, by the railway men of Stratford on the occasion of his removal.

J. B. Morford, Assistant to the General Manager, Michigan Central Rd., contracted a severe cold when in Ottawa, and Buffalo, early in Nov. This developed into pneumonia upon his return to St. Thomas, Ont., and his recovery was considered doubtful from the first. He died Nov. 27, aged 70.

J. J. Byrne, who was recently appointed Assistant Passenger Traffic Manager, Atchison, Topeka and Santa Fe Rd., began his railroad career as office boy in the office of the Auditor Great Western Ry. of Canada, and from 1883 to 1885 was chief clerk in the Michigan Central Rd. passenger department.

C. J. Bowker, who has been appointed Chief Dispatcher G.T.R., Stratford, Ont., entered the employ of the G.T.R. as train dispatcher, May 11, 1900, at London, Ont., and was transferred to Durand, Mich., Feb. 1, 1902, in a similar capacity, remaining there until the date of his present appointment.

Arthur White, formerly Division Freight Agent G.T.R., and Jno. Earls, who recently resigned the Secretary-Treasurership of the Canadian Freight Association, have opened an office at 43 Victoria St., Toronto, to carry on a general insurance and freight brokerage business under the firm name of White & Earls.

Jas. W. Hendrie, son of W. Hendrie, Hamilton, Ont., died in Toronto, Nov. 21, aged 46. He was a railway contractor and was interested in constructing the last 40 miles of the line to Callendar, and the Toronto Belt Line, as well as in a number of lines in the U.S. During the last two years he has resided at Sturgeon Falls, Ont.

R. W. Scott, G.T.R. agent at Portland, Me., who was chairman of the reception committee which looked after the Canadian Ticket Agents' Association during its recent visit there, has proposed that Portland business men and citizens generally form an association to provide for the reception and entertainment of associations, etc., visiting the city.

J. B. Taylor, who had been in the service of the Intercolonial Ry., and its predecessor, the European and North American Ry., for over 40 years, died at Moncton, Nov. 17. He was Mechanical Foreman at Campbellton for some time. Soon after coming to Canada he was engaged in the construction of the old Victoria Bridge over the St. Lawrence at Montreal.

R. W. Leonard, who was engaged on the Algoma Central and Hudson Bay Ry. construction and subsequently was in charge of construction of the Cape Breton Ry., and of the Hamilton Cataract Power, Light and Traction Co.'s power development at De Cew Falls, Ont., is at present engaged on the power development works at Kakabeka Falls, near Fort William, Ont.

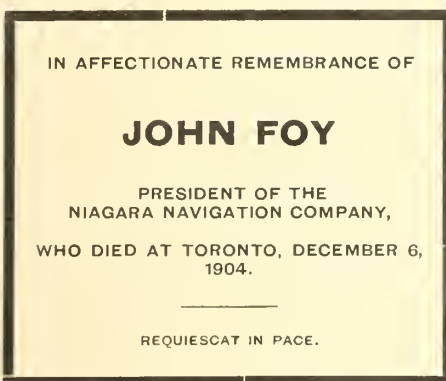
Hon. H. R. Emmerson, Minister of Railways and Canals, started from Ottawa, Oct. 20, on a trip to the Pacific Coast. From Toronto he went to Sault Ste. Marie, to go over the canals there, and in Manitoba and the west has gone over a number of the lines open for

traffic or under construction. He reached the Pacific coast Nov. 8, and was expected to return to Ottawa by the end of Nov.

G. U. Ryley, who has been appointed Land Commissioner G.T. Pacific Ry., was born in Hamilton, Ont., June 16, 1853, and is a Dominion Land Surveyor. He was engaged in Manitoba and the N.W.T., on surveys for the Dominion Government in 1881 and 1882, and in 1883 entered the lumber and mines branch of the Department of the Interior, Ottawa, becoming Chief Clerk, July 1, 1898.

S. J. McLean, Ph.D., Associate Professor of Economics, Leland Stanford University, Cal., has been appointed Associate Professor of Political Science at the University of Toronto. Dr. McLean has devoted a great deal of his time to the study of railroad economics, and in 1902 conducted an investigation into railroad matters in Canada for the Department of Railways. He has also conducted investigations into freight rates upon the Pacific slope for the U.S. Government.

F. W. Cooper, who has been appointed Resident Engineer C.P.R., at London, Ont., was born there Feb. 16, 1880, and was educated at the London Collegiate Institute and the School of Applied Science, McGill University, Montreal. He entered railway service in 1901, his record being: 1901 to 1903 on preliminary location construction and office work with the Algoma Central and Hudson Bay Ry., Sault Ste. Marie, Ont.;



1903 to 1904, transitman C.P.R., at London, Ont.; Jan., 1904, to Oct., 1905, Assistant Resident Engineer C.P.R., London.

G. McL. Brown, who has been appointed General Passenger Agent C.P.R. Atlantic Steamship Line, was born in Hamilton, Ont., Jan. 29, 1865, and entered railway service in 1882, his record being:—1882 to 1885, freight department Northern and Northwestern Ry.; 1885 to 1887, Superintendent's office and other departments G.T.R.; Sept., 1887, to 1902, C.P.R. service at Vancouver, acting successively as ticket agent, district passenger agent, and executive agent; July, 1902, to Nov., 1905, Superintendent Dining, Sleeping and Parlor Cars and News Service, Montreal.

W. G. Annable, who has been appointed General Baggage Agent C.P.R., was born in Ottawa, Ont., in 1875 and entered railway service in 1891 as clerk in the office of the C.P.R. city passenger agent there. He became chief clerk in the office there, and in Jan., 1901, was transferred to the General Passenger Agent's office, Montreal, where he had charge of steamship reservations on the Atlantic for through passengers from the Orient, and on the Pacific for through passengers from Europe, and also around-the-world passengers, and the detail work of the Chinese passenger traffic.

R. H. Morris, General Baggage Agent, C.P.R., died at Montreal after a few days' illness, Nov. 16, aged 36. He had been in ill-health for some time, and took a trip to the West Indies in March, which benefited him

somewhat; latterly he showed signs of failing, but it was not thought he was in such a serious state. Born in Montreal, June 5, 1869, he entered railway service in the C.P.R. baggage department in 1885, becoming chief clerk in 1890, and being appointed General Baggage Agent 1899. The funeral on Nov. 18, was attended by the principal railway officials in Montreal.

D. O. Wood, who has been appointed Western Freight Agent Allan Steamship Lines, was born at Kleinburg, Ont., Mar. 16, 1864, and entered railway service in May, 1883, as clerk in the freight office of the G.T.R., at Toronto. After serving in various capacities he was subsequently promoted to the Division Freight Agent's office at Toronto, and served as rate clerk, claims clerk and chief clerk, being appointed Assistant Foreign Freight Agent at Toronto, in Dec., 1897, acting in that capacity until Jan., 1903, when he was appointed Western Agent for the Robert Reford Co. (Ltd.), Montreal, which position he has just resigned.

The John Young Memorial Committee has accepted the model of the statue which it is proposed to erect in Montreal. The model represents in miniature the figure of the late Hon. John Young, with a chart of the St. Lawrence in one hand, standing on a square granite pedestal, with a section of the St. Lawrence in front of him. The figure, which will be erected in bronze, will be 9 ft. high, and the pedestal upon which it is to stand will be 12 ft. high. The basin in front will have an allegorical figure, representing Father St. Lawrence lying on the bank pouring water into the river. The face of the pedestal will bear the inscription: "Hon. John Young—1811-1878."

The list of securities filed in connection with the proving of the will of the late Senator Fulford, who up to the time of his death retained the G.T.R. ticket agency at Brockville, Ont., showed large investments in steam and electric railways, navigation, telegraph, telephone, and industrial companies generally in Canada, the U.S. and elsewhere. The investments in such securities in Canada included the following:—Electrical Development Co. of Ontario, \$91,000; Ottawa Electric Ry., \$25,000; Canadian Westinghouse Co., \$50,000; Toronto Ry., \$31,800; Richelieu and Ontario Navigation Co., \$36,000; Montreal Telegraph Co., \$6,400; Montreal Street Ry., \$162,750; Bell Telephone Co., \$170,350.

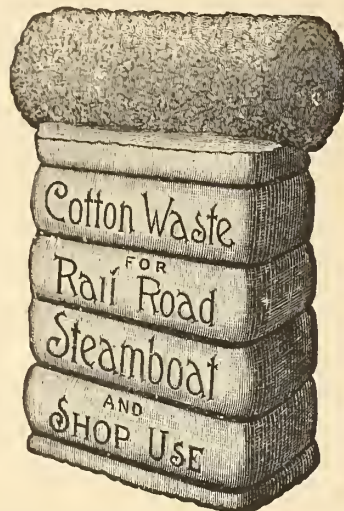
General Philip Gosset Pipon, C.B., who died at his residence, La Motte, St. Heliers, Jersey, Channel Islands, Nov. 3, was the father of C. A. Pipon, Passenger Agent for Ontario, International Mercantile Marine Co. General Pipon was born in 1824, was educated at the Royal Military Academy, Woolwich, and entered the Royal Artillery as second lieutenant in 1842. He saw no active service until the Crimean war of 1854-56, when he served throughout the whole campaign, being chief commissary at the siege of Sebastopol. For his services he received the English medal with three clasps, the Turkish and Sardinian medals, and the fifth class of the Order of the Medjidie. He came to Canada in the autumn of 1863, and commanded the Royal Artillery in Montreal from that time until the spring of 1868. During that period occurred the Fenian troubles of 1866, when he was again in the field. For that service he received the Canadian General Service medal. He also served in Ceylon and India, being created C.B. in 1875. In 1896 the Jersey Times and British Press said of him: "Jersey's 'Grand Old Man,' as he has so often been called, is truly one of its most distinguished sons—and a scion of nature's true nobility, whose genial, kindly character and many sterling qualities have endeared him to scores of admirers in all grades of society."

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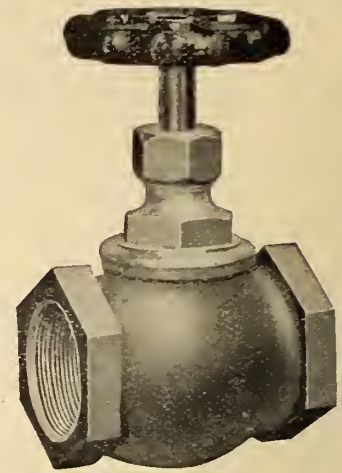
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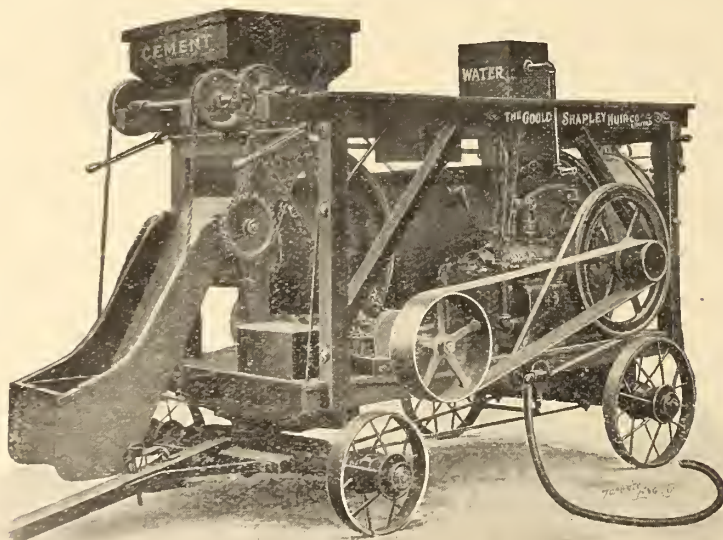
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A FEW POINTERS

On arrival at Winnipeg the wisest policy for any new settler to adopt is to remain in Winnipeg for a few days and learn for himself all about the lands offered for sale and to homestead.

There are districts that have been settled for many years in which land can be purchased. Some of this may be unbroken prairie which still possesses all the richness and productive powers of our virgin prairies. Other lands, cultivated and having comfortable farm buildings, are ready for immediate possession.

There are Provincial Government lands, Dominion Government homesteads, and railway lands to be secured.

The price of land varies from \$3 to \$40 per acre. Location with respect to railways, towns, timber and water determines the price of land.

For information regarding homesteads, apply at the Dominion Land Office.

For purchase of Provincial lands apply at the Provincial Land Office in the Parliament Buildings.

For C.P.R. or C.N.R. lands apply at the land offices of said railway companies.

For lands owned by private individuals apply to the various real estate agents in the city.

For situations as farm laborers apply to :

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PROVINCIAL INFORMATION BUREAU

617 MAIN ST., WINNIPEG

A Household Goods Loss Claim.

In the Trial Court at Toronto Nov. 14, Judge Teetzel gave judgment in the case of Biskey vs. C.P.R. Co., an action tried without a jury at North Bay, for the value of three boxes of household goods shipped by plaintiff on defendant's line of railway at Sault Ste. Marie, for delivery at Wahnapiatae, but which were not delivered, having been in some unexplained way lost by defendants. In addition to the ordinary shipping bill, plaintiff signed a special contract, undertaking that no claim in respect of injury or loss to the property would be made against defendants exceeding \$5 for any one package. The documents were signed, and the goods delivered at noon on Oct. 17, 1904. By a strange coincidence it was on that day that the Board of Railway Commissioners, by order, approved of the form of the special contract, under the Railway Act, 1903, sec. 275. Held, that the Board had jurisdiction to make the order, and the making of it was a judicial proceeding, and therefore a fraction of a day was not to be regarded, and the order must be looked upon as in full force during the whole of Oct. 17. Defendants paid \$15 into Court. Judgment for plaintiff for that sum with costs on the Division Court scale up to the time of payment into Court. No costs to defendants.

Restrictive Railway Legislation is the title of a volume containing the twelve lectures on the subject delivered before the University School of Law, Boston, Mass., in April and May, by Col. H. S. Haines. In these lectures he traces the history of the development of railways and of the various forms of restrictive legislation affecting them that have been adopted or proposed. Each lecture deals with a different branch of the subject, and the thoroughness with which it is discussed may be gathered from the titles of the different chapters—Introduction, Railroad Corporations, Railroad Finance, Railroad Construction, Railroad Operation, Railroad Traffic, Rate-making, Regulation of Rates, State Railroad Commissions, Pending Legislation affecting Interstate Commerce, State Control of Corporations engaged in Public Service, Conclusions. The volume is published in New York, N.Y., and London, Eng., by the Macmillan Co., and in Toronto by Morang & Co., the price being \$1.25 net.

L. J. Seargeant, who was general Manager G.T.R., from 1890 to 1906, and latterly a director, died in London, Eng., Nov. 28.

We are advised with respect to the operation of the Northern Division of the Temiskaming and Northern Ontario Ry., which has not yet been taken over by the Commissioners from the contractor A. R. Macdonell, that the contractor has placed himself under the Traffic Manager of the line in all matters connected with the freight and passenger business. As a result of this agreement the passenger fare has been reduced to 3 cents a mile, and the local commodity mileage freight rates are made to cover all traffic to all points north of New Liskeard, Ont.

The following orders have been placed for rolling stock for Mackenzie, Mann & Co.'s Railway System, the distribution of the same among the various lines not having yet been determined:—Canada Foundry Co., Toronto, 20 freight locomotives and 1 switching locomotives; Canadian Locomotive Co., Kingston, Ont., eight passenger and freight locomotives; Locomotive and Machine Co. of Montreal, 10 passenger locomotives; Crossen Car Manufacturing Co., Cobourg, Ont., 100 flat cars, 30 tons capacity, and 50 stock cars, 36 ft. long; Rhodes, Curry & Co., Amherst, N.S., 12 first-class cars, three baggage and mail cars, 1,000 box cars, 30 tons capacity; 300 flat cars, 30 tons capacity, and four Russell snow plows.

TRANSPORTATION APPOINTMENTS.

Algoma Central and Hudson Bay Ry.—C. L. Vaughn, heretofore Car Accountant, has been appointed Trainmaster in addition to his present duties. He will have direction of the movement of trains and cars on the main line division. Office, Sault Ste. Marie, Ont.

T. Fraser has been appointed Master Mechanic, succeeding C. E. Slayton, resigned.

Allan Line Steamers.—D. O. Wood has been appointed western freight representative. Office, Toronto.

Canadian Pacific Ry.—W. G. Annable has been appointed General Baggage Agent of all lines vice R. H. Morris, deceased. Office, Montreal.

G. Mc L. Brown has been appointed General Passenger Agent of the company's Atlantic steamships. G. A. Ringland, heretofore General Passenger Agent Atlantic steamships, has been appointed Assistant Passenger Agent, same service.

The position of Claims Agent, Ontario Division, vacant by the death of Jas. Wilson, has not been filled, and it is probable that the work will be done by the local solicitors' office.

A. G. Ardagh, Resident Engineer Ontario Division, lines west of Toronto, having resigned, the territory, has been divided. F. W. Cooper has been appointed Resident Engineer on the London and Windsor sections, and Ingersoll and Guelph branches, with office at London, Ont. W. A. Cowan has been appointed Resident Engineer on the Owen Sound section, Orangeville, Teeswater, Wingham and Elora branches, with office at Toronto.

The following circular was issued by Sir Thos. G. Shaughnessy, President, Oct. 31:—"The Tillsonburg, Lake Erie and Pacific Ry., having been leased to the C.P.R. Co., will, after midnight Nov. 15, be operated as part of District 2 of the Ontario Division. All employees then in the T., L.E. and P.R. Co.'s service will become employees of the C.P.R. Co., and will take their instructions from, and report to, its officers accordingly."

The jurisdiction of the officials of district 2 of the Ontario Division has been extended over the T., L.E. and P. Ry., and none of the general officers of that company have been appointed to the C.P.R. service.

W. Bell, heretofore District Superintendent Sleeping, Dining and Parlor Cars and News Service, Central Division, has been appointed District Superintendent same service, for western lines. Office, Winnipeg.

J. T. Whitlaw, heretofore Agent at Pilot Mound, Man., has been appointed Travelling Passenger Agent, succeeding C. W. Graves, resigned. Office, Winnipeg, Man.

R. J. Cherry, District Superintendent Sleeping, Dining and Parlor Cars and News Service Pacific Division, having resigned, the office has been abolished.

S. C. Sykes, heretofore agent Sleeping, Dining and Parlor Cars and News Service, Vancouver, B.C., has been appointed Assistant District Superintendent same service Pacific Division. Office Vancouver.

Chicago and Northwestern Ry.—W. L. Wyand, heretofore Northwestern Passenger Agent of the Michigan Central Rd. at St. Paul, Minn., is reported to have been appointed Canadian Excursion Agent of the C. and N.W.R., with headquarters at Winnipeg. This is probably a temporary position for the fall business.

Erie Rd.—F. D. Underwood, President, has also been elected President of the Cincinnati, Hamilton and Dayton Rd.; the Pere Marquette Rd., and of the Chicago, Cincinnati and Louisville Rd.

The authority of the vice-presidents has been extended over the Cincinnati, Hamilton and Dayton, and the Pere Marquette Rd., as

follows:—C. F. Brownell, First-Vice-President, legal; G. A. Richardson, Second Vice-President, accounting and coal companies; H. B. Chamberlain, traffic; J. M. Graham, Fourth Vice-President, engineering and construction; R. Harding, operation and maintenance. Mr. Harding is since reported to have resigned.

E. A. Williams, Assistant General Manager, has been appointed General Mechanical Superintendent of the Erie Rd., and of its allied and controlled lines. Office, 21 Cortlandt St., New York.

M. P. Blauvelt, Comptroller, has had his jurisdiction extended over the two acquired lines, and J. L. Cramer, Comptroller C.H. and D. Rd., has been appointed Assistant Comptroller of the combined lines.

Grand Trunk Pacific Ry.—G. U. Ryley has been appointed Land Commissioner. Office, Montreal.

Dr. J. M. Leney has been appointed Divisional Surgeon at Winnipeg. He will have jurisdiction over the present construction contract in Manitoba and Saskatchewan.

Grand Trunk Ry.—P. M. Buttler has been appointed Travelling Passenger Agent at Ottawa, reporting to the General Passenger Agent, Montreal.

J. H. Fulford, who for a number of years has discharged the duties of city ticket agent at Brockville, Ont., has been appointed to the position, succeeding the late Senator G. T. Fulford.

The following agents have been appointed: Stottsville, Que., J. A. Sullivan; Beaconsfield, Que., J. A. Bigelow; Napanee, Ont., O. R. Laidley; Trenton, Ont., C. S. Hamly; Sutton, Ont., A. McNabb; St. Louis, Que., C. L. Pearce (Rel.); Admaston, Ont., J. Perreault; Barrys Bay, Ont., J. H. Halpenny. Horace Seely has been appointed Commercial Agent at Kansas City, Mo., reporting to the Assistant General Freight Agent, Chicago, Ill.

Great Northern Ry. of Canada.—See Mackenzie, Mann & Co.'s eastern lines.

Halifax and South Western Ry.—J. D. Sullivan, heretofore attached to the office of the Superintendent of Transportation, C.P.R., Montreal, has been appointed Superintendent Halifax and South Western Ry., succeeding J. Brignell, appointed Local Auditor. Office, Bridgewater, N.S.

A circular issued by W. H. Grant, Manager of Construction for Mackenzie, Mann & Co.'s Halifax and South Western Ry. contract states that L. H. Wheaton has been appointed Chief Engineer of the Halifax and South Western Ry. with headquarters at Bridgewater, N.S., vice T. H. White, assigned to other duties. See also Mackenzie, Mann & Co.'s Eastern Lines.

Intercolonial Ry.—We are officially advised that C. R. Palmer, formerly general storekeeper, is now looking after requisitions for stationery.

James Bay Ry.—See Mackenzie, Mann & Co.'s eastern lines.

Kingston and Pembroke Ry.—W. R. Baker, Assistant to the President C.P.R., has been also appointed Vice-President and General Manager of the K. and P. R., succeeding C. W. Spencer, resigned.

Mackenzie, Mann & Co.'s Eastern Lines.—C. W. Spencer, General Manager, has appointed as his chief clerk, T. A. Hiam, late of the C.P.R. car service department.

See also Halifax and South Western Ry. T. H. White, heretofore Chief Engineer of the Halifax & South Western Ry., has been appointed Chief Engineer of Location and Construction, James Bay Ry. and Great Northern Ry. of Canada. Headquarters, Toronto.

Michigan Central Rd.—J. C. Mock, Signal Engineer, having been appointed Electrical

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Engineer Detroit River Tunnel, the construction of which has been commenced, E. A. Everett has been appointed Acting Signal Engineer, M.C.R. Office, Detroit, Mich.

H. A. Worcester, heretofore Assistant General Superintendent, has been appointed General Superintendent, succeeding S. P. Hutchinson, resigned.

The jurisdiction of J. R. Smart, Superintendent of Dining Car service New York Central Rd., and Lake Shore and Michigan Southern Rd., has been extended over the M.C.R.

C. R. Emery, heretofore Superintendent of Dining Cars, has been appointed Assistant Superintendent Dining Car service.

New York Central Lines.—A general advertising bureau for all the New York Central lines has been created and G. H. Daniels, heretofore General Passenger Agent, has been appointed its Manager. Headquarters Grand Central Station, New York. C. F. Daly, heretofore Passenger Traffic Manager New York Central lines west of Buffalo, has been appointed Passenger Traffic Manager New York Central lines east of Buffalo. Headquarters Grand Central Station, New York. W. J. Lynch, heretofore General Passenger Agent Big Four Rd., has been appointed Passenger Traffic Manager New York Central lines west of Buffalo. Headquarters La Salle St. station, Chicago.

Northern Pacific Ry.—E. E. Blackwood has been appointed General Agent at Victoria, B.C., succeeding C. E. Lang, transferred to Vancouver.

C. E. Lang, heretofore General Agent at Victoria, has been appointed General Agent at Vancouver, succeeding J. O. McMullen, appointed City Passenger Agent at Seattle, Wash.

Quebec Central Ry.—Frank Grundy, Vice-President and General Manager, who has been General Manager for 17 years, feeling that that position should be occupied by a younger man, has asked the directors in England that he be allowed to retire from the General Managership at the end of this year and has recommended as his successor J. H. Walsh, the General Freight and Passenger Agent, Mr. Walsh sailed from Quebec on Nov. 9 for England to meet the board, and it is expected that he will be appointed General Manager from Jan. 1. F. Grundy will retain the position of Vice-President, but it has not yet been determined whether he will remain in Canada or join the board in England. It is not improbable that he will divide his time between the two countries. E. O. Grundy will succeed Mr. Walsh as General Freight and Passenger Agent.

Robert Reford Co., Ltd.—Andrew Reford, of Montreal, has been appointed western agent, succeeding D. O. Wood, resigned to enter the service of the Allan Line Steamers. Office, Toronto.

Tillsonburg, Lake Erie and Pacific Ry.—See Canadian Pacific Ry.

Wabash Rd.—A. E. Robins, Division Superintendent at Buffalo, N.Y., has resigned. The Buffalo and Detroit divisions will be merged Dec. 1, and placed under the supervision of G. M. Burns, Superintendent at Detroit.

The schooner Mary, A. Baird, Jr., owner and master, which left Fairhaven, N.Y., for Napance, Ont., Nov. 6, and which was last seen off Oswego, N.Y., has been given up as lost.

A steam tug belonging to the Rathbun Co., Deseronto, Ont., sank in 15 ft. of water opposite Belleville, Ont., Nov. 14, the crew of six having a narrow escape.

The offices of the Hamilton, Ancaster and Brantford Ry. Co., in Hamilton, Ont., have been closed. This is one of C. D. Haines' projects.

General Passenger Agents' Association.

The annual convention of the American Association of General Passenger and Ticket Agents was held in the city of Mexico, Oct. 17, and following days, among those present being:—G. T. Bell, G.T.R., Montreal; F. F. Backus, Toronto, Hamilton and Buffalo Ry., Hamilton; W. R. Callaway, Minneapolis, St. Paul and Sault Ste. Marie Ry., Minneapolis, Minn.; A. C. Lytle, Orford Mountain Ry., Eastman, Que., wife and son; H. F. Moeller, Pere Marquette Rd., Detroit, Mich.; and wife. Following are the officers for the current year:—President, A. J. Smith, Lake Shore and Michigan Southern, Cleveland, O.; Vice-President, C. L. Stone, Louisville and Nashville, Louisville, Ky.; Secretary, C. M. Burt, Central of New Jersey, New York City. G. T. Bell, was elected a member of the Executive Committee, and was authorized to name a standing committee for Canada. He subsequently appointed the following:—C. E. E. Usher, C.P.R.; J. M. Lyons, I.C.R., and F. F. Backus, T., H. and B.R. A paper on Accounting by A. D. Joslyn, Illinois Central Rd.; an address by R. S. Barrett, of the Travelling Passenger Agents' Association, and a report from the General Baggage Agents' Association, were features of the business portion of the convention. It was decided to meet in 1906 at Atlantic City, and to visit Canada in 1907. The social features of the convention included a reception by the President of the Republic, and numerous excursions and luncheons, as well as a ball.

C.P.R. Betterments, Construction, Etc.

Spur line at Staynerville.—The location plans for a line four miles in length from Staynerville, Que., southerly and westerly to Brunet's quarry, have been approved by the Board of Railway Commissioners.

Iberville Bridge.—Plans have been approved for the construction of new abutments under the existing railway bridge over Napier St., Iberville, Que.

Angus Shops Extension, Montreal.—The buildings in course of erection consist of a freight car paint shop 107 by 321 ft., two lunch rooms 67 by 116 ft., hardwood dry kiln 44 by 85 ft., scrap iron shed 30 by 303 ft., and are briefly described as follows:—The freight car paint shop is an extension of the present one and is 321 by 107 ft., and has six lines of track running through it longitudinally. The cross section is divided into six bays by wood posts which support the roof. The foundations are built of concrete to rock bottom; the outer walls are 17 in. brick faced with pressed brick in harmony with the existing buildings. A brick fire wall divides the new building into two and the wall between the old and new building also serves as a fire wall. The doors in the fire walls will have steel revolving shutters and as a further fire protection the shop will be equipped with the sprinkler system. The building is heated by hot air, and on one side of the house there is a 16 by 24 ft. fan house, and a 12 by 17 ft. lavatory and toilet room. The floor is 3 in. plank on 4 by 6 in. sleepers well bedded in cinders. Two lunch rooms are now nearing completion. No. 1 consists of a room 42 by 114 ft., kitchen 36 by 24 ft., store rooms 37 by 6 ft.; above the store rooms are help quarters. No. 2 consists of a room 42 by 114 ft., and kitchen 24 by 36 ft. The foundations are built in rubble masonry to rock bottom, the exterior walls of plastic la Prairie brick with limestone facings. The roof is trussed, has open purlins and mill board covering and finished with slate on the outside. The interior of the lunch rooms is finished with yellow faced brick, and the floor is hard maple. The buildings will each accommodate 350 men at a sitting. The new

hardwood dry kiln is a duplicate of the present building at the east end of the works; it is 85 by 44 ft., divided into two compartments, with a platform 20 by 44 ft. at each end. The foundations are rubble masonry with concrete footings supported on piles, the side walls are of brick, and the partitions and roof in wood, with tar and gravel covering. There are no end walls, but the openings are covered by canvas doors operated by an overhead roll like a curtain. A storage for scrap iron as a protection from snow is being built on the north side of the present blacksmith's shop. The shed is 30 by 303 ft., and is divided by wooden posts into three longitudinal bays, with a supply track running through the centre bay. The posts rest on flatted cedar sills and the roof is 2 by 4 in. plank nailed on edge, and covered with tar and gravel. (Nov., pg. 537).

Pheasant Hills Branch.—Plans have been approved by the Board of Railway Commissioners for the location of extensions of this branch from mileage 364.7 to mileage 401.5 and from mileage 401.5 to mileage 469.8.

McLeod Deviation.—The contract for the construction of the deviation into McLeod, Alta., has been let to J. D. McArthur, and the work will be undertaken at once. (Nov., pg. 539).

Columbia and Western Ry.—The town of Midway has recently been the scene of a conflict between the construction forces of the C.P.R. and of the Great Northern Ry., U.S., while the representatives of the Midway and Vernon Ry. looked on. The C.P.R., through its subsidiary, the Columbia and Western Ry., and the G.N.R., through its Vancouver, Victoria and Eastern Ry. charter, and the M. and V. Ry. Co. have all power to construct lines through pretty much the same territory, for some considerable distance from Midway. The C.P.R. and the G.N.R. contractors' employees got into several fights just outside Midway, and the Provincial Police interfered. The C.P.R. land agent and the foreman were arrested Nov. 10, but were subsequently released on remand. The courts at Victoria were appealed to, and the V., V. and E. Ry. obtained an order in its favor, but it was subsequently found that it did not cover the particular piece of ground that the fighting had been about. Expropriation proceedings have been commenced for this piece, and meanwhile both contractors have withdrawn their men and the police court proceedings have been dropped. See also Midway and Vernon Ry., and Vancouver, Victoria and Eastern Ry.

A Slight Change of Name.

Commencing with the next issue this paper will be called THE RAILWAY AND MARINE WORLD, instead of THE RAILWAY AND SHIPPING WORLD, as at present.

We believe that the use of the word "marine" instead of "shipping" will more clearly convey the fact that we cover the mercantile marine field and represent the navigation as well as the railway and other allied interests.

We have done this from the start, and the word "shipping" was used as part of the paper's title to indicate the fact. This word is, however, so much used in connection with the forwarding of goods, both by rail and water, that the substitution of the word "marine" will doubtless more clearly define our field.

In this connection it may be added that hereafter we propose to pay additional attention to marine matters. Heretofore we have dealt fully with the lake, river and coasting marine trade. For the future we shall also have a department devoted to ocean shipping, in which, as in other interests, the Dominion is making rapid advancement.

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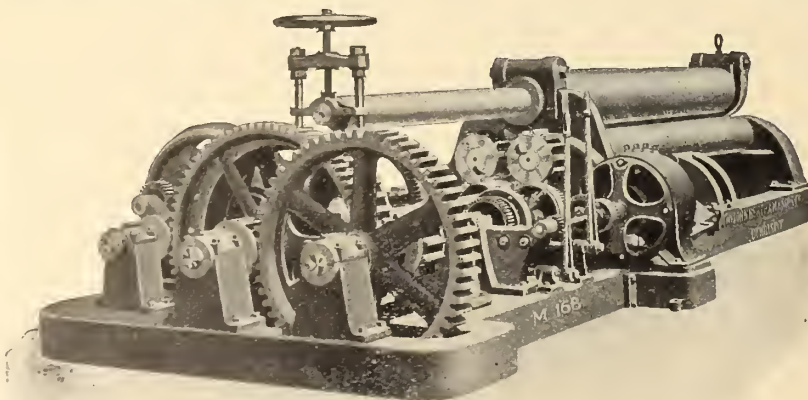
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The Car Shortage Question.

The question of the shortage of cars for the transportation of grain by rail from Georgian Bay ports by rail to the seaboard for export, and the allegation of the Dominion Millers' Association that the railway companies, particularly the G.T.R., were discriminating in favor of export grain over that required for millers' use, has raised considerable discussion of late. The first matter was brought to the attention of the Board of Railway Commissioners by A. A. Wright, Toronto, whose letter is given on pg. 601, and was discussed at a meeting between representatives of the Dominion Marine Association and the G.T.R., in Montreal. The second matter was brought to the attention of the Board of Railway Commissioners by the Secretary of the Dominion Millers' Association in a letter dated Sept. 14 which, however, was not forwarded until Sept. 22, when additional details were given. The allegations contained in this complaint set forth that the G.T.R. was delaying the shipment to local points by not supplying the necessary cars to load the grain at the elevators, and was supplying at the same time cars for export shipment to New England ports, thus giving them the preference and putting the millers to serious inconvenience and loss. Several specific instances of delays in shipments were mentioned, particularly from Midland, Ont. The letters further set forth that on Aug. 19, the G.T.R. was asked to put the moving of grain for the millers on the same footing as for export, and suggesting that if any preference were given at all it should be in favor of local shipments whether from elevators or country points. The G.T.R. replied declining to give the assurance asked for. The C.P.R. was asked to give an assurance that no preference would be given in the car supply for flour over grain at Owen Sound, Ont., or for export grain either at Owen Sound or country points, but had not at Sept. 22 given any answer. The millers, therefore, asked the Board to make orders granting them relief.

The following was issued by the Secretary of the Board of Railway Commissioners under date of Oct. 28:—"The Board has received complaints or representations from the Dominion Millers' Association and other persons and bodies upon the subjects of the shortage and distribution of railway cars and rolling stock. In the opinion of the Board, these questions involve so many interests that they cannot satisfactorily be determined by the Board merely upon a hearing as between one interest and the railway companies. The Board is also of opinion that it can ascertain the facts and be placed in a position to take any action that may seem proper, better and more quickly by sending its traffic officer, who understands the records of railway companies, to gather all possible information and to go to such places as may be necessary for the purpose, than upon a formal hearing before the Board. The Board has, therefore, made an order in the matter, and will be glad to have the Dominion Millers' Association, or any of its members, or any other persons or bodies interested in the complaints or representations made, furnish any information or make any suggestions to its traffic officer that the association or its members, or other complainant, may desire to furnish or make. The Board has directed its traffic officer to furnish, as quickly as possible from time to time, without waiting to exhaust all the subjects of inquiry, such facts as, in his opinion, will place the Board in a position to act speedily. The Board also thinks it extremely probable that great injury and inconvenience are being caused to many interests by want of a sufficient supply of cars; but that the subject is such a wide one and affects so many interests, that there is great

danger of causing injury in other directions by hasty action. The Board therefore does not feel warranted in taking any action, until it sees that, in justice to all interests, it can properly do so. The order just issued affects only the two railway companies named therein, namely, the G.T.R. Co., and the C.P.R. Co., and is confined to the Province of Ontario, in order to limit the inquiry as far as it can reasonably be done."

Four orders were issued directing the Chief Traffic Officer to hold an investigation. Two of these were directed to the C.P.R. Co., and two to the G.T.R. Co.

The sitting of the Board to hear evidence on the complaint was opened in the G.T.R. Board Room, Montreal, Nov. 8, all the commissioners attending. E. Primeau, acting Secretary, and J. Hardwell, Chief Traffic Officer, were also present. The interested parties were represented as follows:—Dominion Millers' Association—G. Goldie, President; C. B. Watts, Secretary; J. W. Flavell, Lindsay, Ont.; and D. Plewes, Toronto. G.T.R.—M. K. Cowan, Assistant Solicitor; J. W. Loud, Freight Traffic Manager; J. Pullen, Assistant Freight Traffic Manager; J. E. Dalrymple, General Freight Agent; M. C. Sturtevant, Car Service Agent; and A. F. Read, Foreign Freight Agent.

The representatives of the milling interests placed the facts of their case before the Commission, which had been furnished with an interim report by Mr. Hardwell, dated Nov. 6.

J. W. Loud, in presenting the case for the G.T.R., pointed out that the Manitoba crop was not only heavier, but it was moving three weeks earlier than usual. The exporters demanded that it be moved. Fall fairs, the apple crop, etc., all came along at the same time, bringing about a congestion of traffic. Locomotive power had to be transferred from freight to passenger service to move the trains and as a consequence the company was charged with discriminating against the millers' interests, because the millers of Ontario, like other interests, were not able to get enough cars to supply their wants. He further stated that it was impossible to purchase rolling stock to meet the requirements of this traffic, after it was learned that the crops were going to be exceptionally heavy. Dealing with the question of traffic over the system during Sept. and Oct., he gave a statement showing that of the freight moved the following ratio applied: Millers' wheat, 23.7; export, 45; United States domestic, 31½. These figures proved he thought, that, considering the big export business done, and the comparatively small amount of milling, the millers were not being discriminated against, or they would not have 23.7% of the traffic handled. He also pointed out that the Canada Atlantic Ry. had entered into contracts for the moving of grain from Depot Harbor, for which the G.T.R. was now responsible. The G.T.R. had cancelled some of these obligations representing probably the moving of 1,000,000 bush.

M. K. Cowan also addressed the commission for the railway, pointing out that the company was under contract to supply a large amount of exports to steamship companies. This obligation had to be met, despite the contentions of the millers. If the company could keep enough rolling stock on its lines to meet all demands, then both exporters and millers, as well as fruit growers and others, would have no grounds for the complaint that the railway was not giving them necessary cars. But no company would be so foolish as to keep rolling stock idle for seven or eight months of the year, unless the receipts obtained from the movement of traffic was sufficiently large during the three or four emergency months to pay for the months the cars and locomotives were not in use. From March to Sept. of this year the company had

a surplus of cars, and now there was a shortage, not due to the short sight of the management, but to the rush of all interests to have their produce moved before the close of navigation.

Additional evidence was taken by the Commission Nov. 9, and a further interim report upon this phase of the question was presented by Mr. Hardwell, Nov. 13.

The Board issued the following order Nov. 15:—"In the matter of the complaint of the Dominion Millers' Association, under the Railway Act, 1903, to the Board as set out in letters to the Board of Sept. 14 and 22, 1905, against the G.T.R. Co., alleging delay in the shipment of ex-lake grain from Georgian Bay and Lake Huron elevator ports and discrimination in favor of exporters as against the millers of Ontario in the allotment of empty cars for such grain. This complaint having come on for hearing before the Board at Montreal, on Nov. 9, in presence of counsel for the G.T.R. Co. and the representatives of the Dominion Millers' Association and the Shipping Federation of Canada; upon reading the order of the Board, dated Oct. 25, directing its Chief Traffic Officer, among other things, to inquire respecting alleged discrimination by the G.T.R. Co. in the distribution or allotment of its freight cars; and upon reading the reports of the Chief Traffic Officer, dated Nov. 6 and 13, and it appearing that the G.T.R. Co., in the distribution and allotment of its freight cars for the carriage of grain brought by lake shipments to certain points on its system, has discriminated unjustly, and is continuing and proposes still to continue to discriminate unjustly against the flour-milling industry in Ontario and in favor of shipments for export from Montreal and Portland, Me. Now, therefore, the Board doth order:

That if at any time after notice of this order, and before Jan. 31, 1906, the G.T.R. Co. fails to furnish, at any of the following points on its system, viz.: Midland, Collingwood, Meaford and Point Edward, Ont., sufficient empty cars to fill all shipping orders then on file with the said company at any such point, such cars as are furnished shall be apportioned among such shipping orders which have then been so filed for more than one day, at such port, in the order of filing until one car has been allotted to each order, after which the remaining cars, if any, shall be apportioned pro rata among the remainder of such orders which have been so on file for more than one day and which have not then been filled. This operation shall be repeated from day to day so long as the supply of cars is less than the requirements. Provided, always, that the railway company may be allowed to utilize its equipment by departing from the order of filing as aforesaid:—(a) So as to furnish loads of suitable weight for cars of capacity of less than 30 tons each which would otherwise be idle while waiting their turn; (b) To furnish loads for cars so defective as to be unfit for the carriage of grain in bulk, and (c) To clear elevator bins of remnants of grain when such bins are required during open navigation for the immediate reception of grain of another kind or grade for which other bins are not available, the total of such remnants not to exceed three carloads on any one day from any one bin. That no shipping order for grain shall be considered to have been properly filed under the foregoing provisions until the grain is in the elevator from which it is to be shipped, or in a ship or vessel then in actual process of unloading into such elevator.

It will be observed that the above order deals with only one feature of the car shortage situation, which in view of the early closing of navigation was taken up first. On Nov. 16 we were advised that the enquiry into the complaint of alleged general shortage of equipment was being proceeded with.



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Late Miscellaneous Items.

The barge Melrose belonging to the Montreal Transportation Co. ran on a shoal near Brockville, Ont., Nov. 23, and sank. The Melrose was a sister vessel to the Minnedosa, recently lost in Lake Superior.

The Canadian Locomotive Co. has applied to the Kingston City Council asking for an exemption of taxes for 20 years. If the exemption is granted the company proposes to increase the plant to double its present capacity, and to employ a large number more men.

Addressing a meeting at Winnipeg, Nov. 22, the Premier of Manitoba spoke in favor of a Government system of telephones for the province. The scheme outlined embraces a trunk line to be constructed by the Government, and available for the use of all municipalities which will construct the local and branch systems.

The Railway Age, Nov. 3, published a paragraph to the effect that A. J. Rossar had been appointed resident engineer, Canadian Northern Ry., in charge of construction work west of Edmonton, Alta. We were officially advised, Nov. 15, that this was incorrect, and that as a matter of fact the officer advising us did not know any one of that name.

The Board of Railway Commissioners paid a visit to Parry Sound, Ont., Nov. 17, to look into the question of the route of the C.P.R. Toronto-Sudbury branch through the town. The line according to the location survey will be carried over a section of the town on a trestle bridge. A number of objections have been made to the route by those whose land it is proposed to expropriate.

A new navigation company to operate on Lake Ontario is in process of formation in Buffalo, N.Y., with the title of the Niagara and St. Lawrence Steam Navigation Co. It is reported that the route will be from Lewiston to Alexandria Bay, N.Y., calling at Charlotte and Oswego, N.Y., and that it will be opened early in the summer. The company is reported to have acquired the steamer Chippewa and Iroquois, which were running on Lake Michigan last season. The screw str. Chippewa was built at Toledo, Ohio, 1900, for the Arnold Transit Co., Mackinac, Mich., her dimensions being:—length, 170 ft.; breadth 34 ft.; depth, 15 ft.; gross tonnage, 996 tons. The Iroquois was built at Toledo, Ohio, 1901, her registered owner or manager being W. H. Singer, Duluth, Mich. Her dimensions are:—length, 214 ft.; breadth, 34 ft.; depth, 21 ft.; gross tonnage, 1,169 tons.

ELECTRIC RAILWAYS.

Projects, Construction and Betterments.

Chatham, Wallaceburg and Lake Erie Rd.—The new electric railway from Chatham to Wallaceburg, Ont., was formally opened for traffic Nov. 22. The line has been constructed under a Dominion charter, the officers and directors being:—President, G. W. Kipp, Towanda, Pa.; Vice-President, N. H. Stevens, Chatham, Ont.; other directors: Hon. M. E. Lilly, Hon. S. F. Robinson, R. E. Kizer, Towanda, Pa.; D. A. Gordon, Wallaceburg, Ont.; J. T. O'Keefe, Chatham, Ont.; General Manager, W. N. Warburton; Secretary, and Solicitor, E. Bell; Auditors, W. Stanworth and J. D. McKendry. The company was organized in May, and the franchises having been obtained from the municipalities of Chatham, Dover and Wallaceburg, a contract for the construction of the line was let to E. Whalen. A power house was erected at the corner of King and Third streets, Chatham. (Sept., pg. 425).

Huron and Ontario Ry.—The act incorporating this company was passed by the Do-

minion Parliament in 1896, and an act amending the original act was passed in 1903. It has power to operate by steam or electricity, but it proposes to use electricity. The company has recently been reorganized, the President being S. F. Kilgour, the Secretary F. H. Kilgour, and the offices are in the Confederation Life Building, Toronto. The Chief Engineer is H. W. Middlemist, with D. S. Hartrick as engineer in charge of surveys in the field. Some surveys were made west of Uxbridge, but this was not gone on with, and the engineers are now engaged upon a survey between Owen Sound and Meaford, and it is proposed to start surveys from Edgeley towards Meaford. (Nov., pg. 541).

Hamilton Radial Ry.—Track was reported to have been laid into Oakville, Ont., on the extension from near Burlington, Nov. 20. The ballasting of the line was not expected to be gone on with this year. (Oct., pg. 487).

Montreal Street Ry.—A million dollars has been appropriated by the directors to be used during the current fiscal year for the construction of new feeder lines, increasing the power capacity at the several substations, and providing additional rolling stock. (Oct., pg. 487).

Toronto and York Radial Ry.—Work on the extension of the Mimico division has been completed to Port Credit, Ont., and some grading has been done beyond that point. It is intended that the line shall form a junction at Oakville with the Hamilton Radial Ry., which has just completed laying its track into that town. (Oct., pg. 487).

Electric Railway Notes.

Halifax Electric Tramway railway earnings for Oct., \$12,833.59, against \$12,434.51 for Oct., 1904.

The Niagara, St. Catharines and Toronto Ry. earnings for Oct., 1905, were \$21,762.81, against \$19,875.77 for Oct., 1904.

W. C. Irwin, a Glennorris, Ont., farmer, was fined \$150 by Judge Hardy, for placing obstructions on the tracks of the Grand Valley Ry. last spring.

W. Laidlaw, K.C., heretofore solicitor for the Toronto Ry. Co., has joined the firm of McCarthy, Osler, Hosken & Harcourt, which firm has been appointed general solicitors for the company.

C. B. King of Detroit, Mich., has been appointed Manager, and T. D. Benson, Secretary-Treasurer, London Street Ry. These offices were formerly combined and held by C. E. A. Carr.

F. Griffith, Superintendent Hamilton Street Ry., has been appointed to a position in office of the Cataract Power, Light and Traction Co. He is succeeded by D. N. Miller, Assistant Superintendent. J. G. Gibson, Superintendent Hamilton Radial Ry., will act as Assistant Superintendent H. S. Ry. in addition to his present duties.

Three suits in which the Toronto Ry. and the City Council were interested have been decided. The suit of the company against the city to recover \$2,343 for car and material supplied for making experiments, was dismissed. The Divisional Court gave judgment for the city in the appeal of the company against the decision of the County Court Judge imposing penalties for running a car on Avenue Road without a suitable fender; the cars on this line were run for a distance of 1,200 ft. from a Y, with the rear of the car first. The third case was the judgment of the Privy Council in London, Eng., to the effect that the company had to pay to the city mileage on the track on Queen St., between Roncesvalles Ave. and the G.T.R. at Sunny-side in territory which was annexed to the city after the agreement between the company and the city was made.

Montreal Street Railway Co.'s Report.

The report for the year ended Sept. 30, presented at the annual meeting, Nov. 2, shows net earnings of \$1,056,908.12 as compared with \$952,826.80 the previous year. After providing for the percentage on earnings accrued to the city and interest on bonds and loans, the directors declared four quarterly dividends, amounting to \$691,666.67, and in view of the company having assumed its own fire risk, have placed an additional sum of \$25,000 to the credit of the fire insurance fund, which now amounts to \$304,929.92, and to the credit of the contingent account \$60,000, leaving a surplus of \$1,502.07, which has been transferred to the general surplus account. An amount of \$107,604.11, expended during the year on special renewals, has been charged against the contingent account. The gross earnings show an increase over the previous year of \$243,649.41. The operating expenses increased \$139,568.09. Several new extensions to tracks have been constructed during the year and the rolling stock and equipments have been increased to keep up with the requirements of the traffic. The directors purchased a large block of land on St. Denis St., north of the C.P.R. tracks, in order to permit of the construction of car sheds, substation, and other necessary buildings to keep up with the growing business. A contract was entered into with the Montreal Light, Heat and Power Co. for the supply of 3,000 h.p. alternating current to be delivered at sub-stations at outlying points in the city. The Mutual Benefit Association established by the men continues to prove a success. The majority of the employees now belonging to it, appreciate the many benefits derived from same. The company contributed to this association during its fiscal year ended April 30, \$12,021.66. The directors secured an extension of the franchise for the construction and operation of the system in the town of Maisonneuve. The gross earnings of the Montreal Park and Island Ry. Co.'s system have shown a satisfactory increase, and while the operating expenses have also shown an increase, the net results have been fairly satisfactory. A contract was made with the M.P. and I. Ry. Co. to supply it with all the power required to operate its system. This will permit of the closing down of its steam power stations. The company has paid to the city of Montreal the usual property and business taxes \$17,340.80, taxes on earnings \$147,724.10, account snow cleaning \$68,691.96, making a total of \$233,756.86.

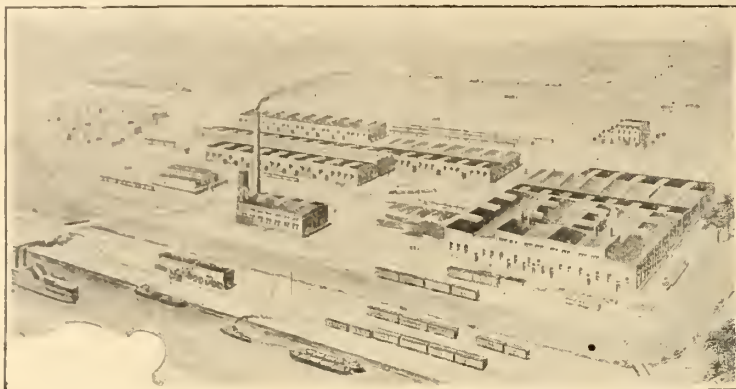
Following are comparisons:—Gross receipts, \$2,707,474.11, against \$2,463,824.70; operating expenses \$1,650,565.99, against \$1,510,997.90; expenses per cent. of car earnings 61.88, against 62.37; net earnings \$1,056,908.12 against \$952,826.80; net income per cent. of capital 11.25 against 11.10; passengers carried 66,631,206 against 60,281,834; car earnings per passenger 4.00 cents against 4.00 cents; transfers 19,801,893 against 17,915,242; total passengers carried \$6,433,099 against 78,197,076; car earnings per total passengers carried 3.09 cents against 3.09 cents.

ASSETS.

Cost of road and equipment	
Construction, etc.	\$4,047,628.26
Equipment, etc.	3,923,915.74
Real estate and buildings..	1,810,720.69
Stocks and bonds of other companies	1,223,264.70
	\$11,005,529.39
Stores	\$187,469.67
Accounts receivable	82,543.52
M. P. & I. Ry. advances.	229,755.28
Cash in bank and in hand	56,411.46
	\$556,179.93
Fire insurance fund investment.	266,000.00
	\$11,827,709.32

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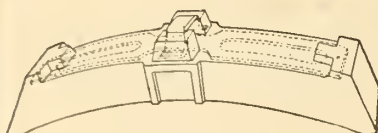
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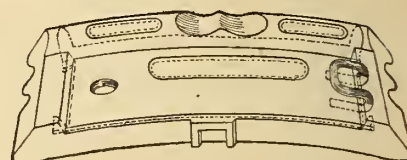
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Contact Surface

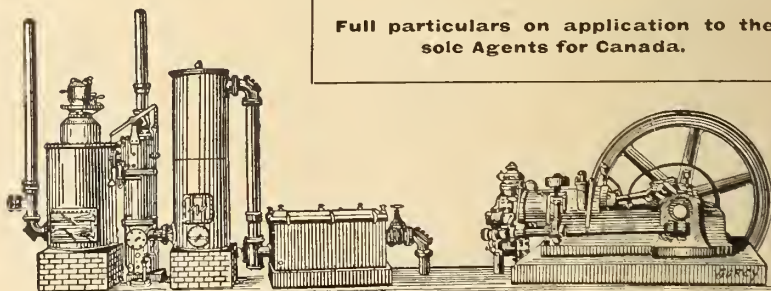
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LIABILITIES.	
Capital stock.....	\$7,000,000.00
Bonds:	
5 % due March, 1908.....	292,000.00
4½ % due Aug., 1922.....	681,333.33
4½ % due Nov., 1922.....	1,500,000.00
Mortgages.....	36,034.51
	\$9,509,367.84
Bank of Montreal loan.....	650,000.00
Accounts and wages payable.....	232,222.40
Accrued interests on bonds.....	34,568.50
Accrued tax on earnings.....	156,551.04
Employees' securities.....	14,389.10
Unclaimed dividends.....	1,956.57
Unredeemed tickets.....	30,727.85
Suspense account.....	115,302.16
Dividend payable Nov. 2, 1905.....	175,000.00
	\$1,410,717.62
Fire insurance fund.....	304,929.92
Contingent account.....	81,626.94
Surplus.....	521,067.00
	907,623.86
	\$11,827,709.32

PROFIT AND LOSS ACCOUNT.		
	1905	1904
City percentage on earnings	\$148,246.41	\$128,093.18
Int. on bonds and loans	130,492.97	111,392.14
Dividends (payable quarterly).....	691,666.67	642,520.00
Transferred to fire insurance fund.....	25,000.00	20,000.00
Transferred to contingent account.....	60,000.00	50,000.00
Transferred to surplus account.....	1,502.07	821.48
Net earnings from op'n.	\$1,056,908.12	\$952,826.80

The report and statement of accounts were adopted.

Six thousand dollars were appropriated for the services of the directors during the year.

The retiring directors were re-elected. The officers and directors for the current year are:—President, Hon. L. J. Forget; Vice-President, K. W. Blackwell; Managing Director, W. G. Ross; other directors: Sir H. M. Allan, Lieut.-Col. F. C. Henshaw; Secretary, P. Dubee; Auditor, A. Stewart.

The balance sheet of the Montreal Park and Island Ry., (which is owned by the M.S. Ry.) for the year ended Aug 31, is published as a part of the financial statements. It shows

ASSETS.	
Cost of road and equipment.....	\$2,215,533.76
Office change fund.....	1,700.00
Accounts receivable.....	2,108.40
Profit and loss.....	685,051.66
	\$2,904,393.82

LIABILITIES.	
Capital stock, preferred.....	\$ 315,000.00
Capital stock, common.....	720,900.00
Bonds.....	1,025,000.00
Mortgages.....	500.00
Unredeemed tickets.....	8,150.01
Suspense account.....	5,139.16
Montreal Street Ry. Co.'s loan.....	167,219.60
Accrued interest on bonds.....	518,553.77
Cumulative dividend on preferred stock.....	143,931.28
	\$2,904,393.82

INCOME ACCOUNT.		
	1905	1904
Gross earnings.....	\$179,559.14	\$165,889.90
Operating expenses.....	157,607.39	167,533.13
Net earnings.....	\$ 21,951.75	*\$1,643.23
Fixed charges, bonds and loans.....	\$94,163.64	
Cumulative pref. shares.....	18,900.00	
	113,063.64	113,599.05
Deficit.....	\$91,111.89	\$115,242.28
*Deficit.		

Hamilton Street Ry.—The amount paid to the Hamilton City Council by the company for the quarter ended Sept. 30, was \$7,120.88 against \$5,540.92 for the same period, 1904.

The proposal to allow the Winnipeg Electric Ry. Co. to operate its cars on Sundays has practically fallen through, the city council and the company failing to agree on terms.

British Columbia Electric Railway.

The ninth annual meeting of shareholders was held in London, Eng., Oct. 16, R. M. Horne-Payne, chairman, presiding. The report of the directors and statement of accounts published in our last issue were presented and the chairman, in moving their adoption, said in part:—The matters of principal interest during the year have been the complete reorganization of the administrative arrangements; the completion of the Vancouver power plant; the opening of the electrified railway to Steveston; the agreement with the C.P.R., sanctioned at the last meeting; the acquisition, making, and opening of a new pleasure park at Victoria; and the signature of a contract with the corporation of North Vancouver to extend operations to that city. The growth of the undertaking rendered the re-arrangement of the administrative department absolutely necessary. The work falling on the directors in London had become intolerably heavy, and made it desirable that they should have the constant advice and assistance of Mr. Buntzen, so long General Manager, and at the same time it became apparent that one man could no longer attempt all the duties hitherto discharged by the General Manager. They therefore arranged for Mr. Buntzen to take a seat on the Board as Managing Director, appointing R. H. Sperling, for so many years Chief Superintendent, as successor, and F. Hope, formerly London Secretary, to help him as Assistant Manager; and formed a local advisory committee, being so fortunate as to obtain the services of F. S. Barnard and R. G. Tatlow. The Vancouver power instalment has been completed, and was opened by the Lieutenant-Governor. The gigantic work was carried out without a hitch from the date it started. Every calculation of the engineers proved completely accurate, and the work was finished ahead of time, and, allowing for the largely increased output provided for within the original estimates. For this they have much to thank the Managing Director, the consulting engineer (Wynn Meredith; the local engineers, Hermon and Burwell; the then General Superintendent, R. H. Sperling; and all who took a part. The electrification of the railroad to Steveston was accomplished, and the line was opened for traffic July 4. It is yet too soon to say definitely what the results of this or of the Power Co. installation are going to be to the profits of the company. The company is still going through a period of experiment, but I think it fair to anticipate that, as a result of the agreement with the C.P.R., there will be a nice little revenue to divide with that company annually. The new park at Victoria was not undertaken as a source of profit, but merely in accordance with the policy of helping the cities on which we depend. It has given much satisfaction and pleasure to the inhabitants of Victoria, and similarly the new railway, lighting and power business in North Vancouver cannot possibly be a source of profit for some years to come, but we are, nevertheless, gratified at having established the line in this very promising city. There is one duty which falls to me annually on this occasion which affords me no difficulty, but, on the contrary, the greatest pleasure, and that is to invite you to put into words and formally convey the deep thanks which we feel to our staff and employees of every grade for the loyalty they all have shown to the company, and for the magnificent work they do.

A motion for the adoption of the report and accounts was unanimously adopted.

A resolution authorizing the payment of the dividend on the cumulative perpetual preference stock and preferred ordinary stock, approving the interim dividend of 3% on the ordinary deferred stock paid in April, and

declaring a balance dividend of 3%, on the deferred ordinary stock, making a total dividend of 6% for the year ended June 30, 1905, was passed.

G. P. Norton, R. K. Sperling, T. B. Brown, and J. Buntzen were re-elected directors, and Norton, Feasey, and Slade, London, Eng., and Clarkson, Cross and Helliwell, Vancouver, B.C., were re-appointed auditors.

Montreal St. Ry. Car Barns.

The Montreal Street Ry.'s new car barns will be erected on De Fleurmont St., near St. Denis St. Each of the sheds will be 202 ft. long, 140 ft. wide, and 17 ft. 4 ins. high, from top of floor to underside of beam, each having a capacity of 48 cars 50 ft. long over all. The foundations will be of concrete, composed of one part Portland cement, three parts sharp river sand, and five parts clean broken stones. The walls and piers are also to be of concrete, with foundation bolts built in them. The water table course, door and window sills, lintels, and skewbacks over windows, will be of Montreal limestone set in mortar the same as used for the brickwork. The walls of the buildings are to be of sound, plastic, hard-burned brick, while the facing in front elevation will be no. 3 red pressed brick; the bricks to be laid with every 7th course a course of headers. The floors will be 9 ins. concrete laid on the levelled surface of the ground pitched to gutters, with a finishing layer 1 in. thick trowelled to a smooth and level surface. The construction of the iron work will be all riveted; load assumed for roof being 75 lbs; all the iron work to be painted two coats of carbonizing paint. The doors will be adapted to the requirements of a street railway, and operated by hand. The roof will be 5-ply 8 oz. composition tar and gravel roofing. The wood roof will be composed of 3x4 spruce laid and spiked together so as to form a solid roof 4 ins. thick, on top of which will be laid 1 in. spruce boards grooved and tongued; the whole being covered by the tar and gravel roof. The walls, skylights, fresh air inlet and all places where required, will be flashed with galvanized iron. The skylights will be made of galvanized iron reinforced with iron rods, and set in wooden curb and glazed with double thick obscure glass. Fire doors will be covered with tin on all sides with invisible, nailed lock seams, and hung on gravity hinges. The floors and platforms between the tracks will be 3 x 4 spruce laid on edge but not nailed—simply fastened so that they can be easily removed. The doors, where not rolling, will be of white pine with white pine or white wood frames. Water closets and toilet rooms will be provided, also standpipes for fire hose. The heating will be by the fan system of hot air, and of a capacity to change the air four times an hour and to heat the building to 70° F. in zero weather. Steam will be furnished by two horizontal tubular boilers and furnished with induced draft fans. A feature in connection with these new sheds will be that the flooring between the tracks in the front part of the sheds will be lowered 18 ins. below level of rail, to facilitate the examination of trucks, etc., without jacking up of cars. The sheds will be built by the Canadian White Co.

C. E. A. Carr, heretofore General Manager and Secretary-Treasurer of the London, Ont., Electric Ry., and formerly Manager of the Montreal Park and Island Ry., has been appointed General Manager of the Helena Light and Traction Co., Helena, Montana. This is a combination of three electric railway companies, two electric lighting companies and a gas light and a coke company. The capital is \$250,000, and the company was reorganized on its present basis in 1901.

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FREIGHT CARS
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OFFICE AND WORKS—Esplanade East, TORONTO

Guelph Radial Railway Co.

Manager Hackney has presented the second annual report to the Guelph, Ont., City Council, the road being owned by the city. The receipts for the year ended Sept. 30 showed a surplus of \$1,915.71 against a loss of \$2,378.80 for the previous year. The receipts increased 30%, a large part of which was due to the opening of Riverside Park. The financial statements follow:

ASSETS.

Construction.....	\$78,000.00
Cemetery extension.....	3,077.76
Storage battery.....	7,286.16
New equipment.....	4,195.86
Water lot.....	150.00
Coal siding.....	410.75
Rink capital.....	183.74
Park.....	6,676.46
Feeder.....	277.64
Stock.....	1,059.29
City Treasurer.....	400.00
Accounts receivable.....	351.34
Insurance unexpired.....	210.00
Inventory.....	541.89
Cash on hand.....	21.40
Cash in bank.....	6,154.99
Balance at debit profit and loss.....	463.09

\$109,460.37

LIABILITIES.

City of Guelph.....	\$108,000.00
Accounts payable.....	901.97
Accident.....	558.40

\$109,460.37

RECEIPTS.

Passengers.....	\$22,309.63
Freight.....	1,310.22
Advertising.....	374.00
Rent.....	240.00
Power rental.....	168.00
Park.....	217.00

\$24,618.86

EXPENDITURES.

Car barn maintenance.....	\$ 3,620.66
Track.....	756.83
Coal.....	2,880.03
Passenger operation.....	6,581.03
Interest and discount.....	356.56
Expense.....	165.23
Insurance.....	58.00
Office.....	1,178.00
Debt interest.....	2,000.00
Freight operating.....	270.39
Freight charges.....	80.67
Oil and grease.....	211.74
Power house.....	1,472.70
Rink.....	191.67
Painting and upholstering.....	232.00
Accidents.....	847.15
Legal.....	60.10
Stationery.....	207.15
Taxes.....	230.00
Park.....	377.46
G.T.R. Co.....	361.96
Line.....	307.25
Puslinch Lake.....	16.00
By-law.....	240.65
Net gain.....	1,915.71

\$24,618.86

PROFIT AND LOSS ACCOUNT.

To amount at debit.....	\$ 2,378.80
Net gain year ended Sept. 30, 1905.....	1,915.71
Balance at debit.....	\$463.09

In the quarterly revision of the maps issued by the C.P.R., completed in Nov., it was stated that 128 new stations, mostly in Saskatchewan, Alberta and British Columbia, had been added.

The use of motor cars on railway lines for suburban traffic and to provide more frequent services on sections of lines where a regular steam train service would not be profitable, has been steadily extending in Great Britain and the United States. In 1902 the C.P.R. constructed a special electric car for use of tourists in the Rocky Mountains, and latterly its officials have been giving a general consideration to the question of the advisability of adopting motor car service on various sections of its lines. The matter has not yet advanced sufficiently far to enable any definite information to be given.

Grain Elevator Notes.

The Alberta Pacific Elevator Co. has purchased the farmers' elevator at Carstairs, Man.

The Kidd elevator and flour mill at Prince Albert, Sask., were reported nearly completed early in Nov.

The Red Deer Flour and Milling and Elevator Co. is arranging to erect a flour mill and elevator at Red Deer, Alta., at a cost of \$40,000.

The foundations for the new elevator at Goderich, Ont., have been completed, and scaffolding for the erection of the superstructure has been erected.

The Brackman-Ker elevator at Fort Saskatchewan, Alta., is practically completed, the reports early in Nov. being that the machinery was being installed.

The Collingwood, Ont., Elevator Co., is arranging to ask the town council to guarantee its bonds to the amount of \$75,000 in consideration of its erecting a 2,000,000 bush. elevator.

The Department of Trade and Commerce reports that for the current season there are in the Manitoba grain inspection district 974 elevators, and 46 warehouses with a combined capacity of 46,953,830 bush.

The foundations of the Kelly Milling Co.'s elevator at Regina, Sask., were reported to be in a dangerous state, Nov. 4. The elevator contained 40,000 bush. of grain. Steps were taken to shore the elevator up so as to prevent a collapse.

C.P.R. elevator B at Fort William, Ont., was not running for some time during Oct., owing to a break in the machinery. Elevator D, which had not been running for some time previously, was started up and the work of transferring grain was not retarded.

At a joint meeting of the Grain Growers' and Agricultural Associations at Emerson, Man., recently, the Deputy Minister of Agriculture for Manitoba announced that the Government would permit farmers to take back their own screenings, but would continue to prosecute elevator companies and mills for disposing of them in any other way.

The Smith Grain Co. has been incorporated under the Manitoba Companies' Act, for the purpose of carrying on a grain buying, milling and elevator business, etc., in Manitoba. The capital is fixed at \$40,000 and offices at Winnipeg. The provisional directors are M. K. Smith, F. E. McGray, Winnipeg; E. Florence, Humboldt, Minn.; A. M. Eklund, Williams, Minn.; J. K. Gray, Northcoote, Minn.

The Court of Appeal has restored the original verdict in the case of Wood against the Continental Engineering and Construction Co., in connection with the pile driving contract for the Harbor Commissioners' elevator at Montreal. In the original action the Court gave Wood a verdict for \$193, which was increased to \$1,425 by the Court of Review. The Court of Appeal has reversed this latter decision.

The installation of the electrical equipment of the G.T.R. elevator at Montreal is being proceeded with. Electric power to the extent of 2,000 volts will be supplied to a substation near the elevator, then handled and passed to three 875 k.w. transformers, which will reduce the power to 550 volts for the motors which are distributed throughout the structure. There are 20 of these motors, of the following horse power: 1 3-h.p., 7 5-h.p., 1 50-h.p., 10 75-h.p., 4 75-h.p., 1 100-h.p. and 2 150 h.p. The electric plant was supplied by the Canadian Westinghouse Co., Hamilton, Ont.

SHIPPING MATTERS.

The Lake Freight Situation.

Our Winnipeg correspondent wrote on Nov. 16: "The past month has shown many surprises in the way of lake freights, Canadian vessels having received as high as 5½c. per bush. freight, from Port Arthur-Fort William to Georgian Bay ports, which is perhaps the highest rate that has been paid in 12 years. The cause of these high rates has, of course, been the blockade of the elevators on the Georgian Bay, through lack of cars to keep them clear, and this same trouble has been the cause of the diversion to Buffalo of fully one-third of the total crop shipped, and before the season closes, the percentage will at least be increased to 50%, as a great many U.S. vessels are now chartered to load at Fort William before the close of navigation, for Buffalo. Buffalo rates the early part of November ran as high as 5c. per bush., but owing to a more free offering of tonnage, the rate has since been reduced to 4c. These rates are also very high for this season of the year through a combination of elevator blockades at Buffalo and scarcity of grain tonnage, as the iron ore movement on the U.S. side of the lakes has been the greatest in the history of the lakes the past season, and a great many of the U.S. vessels were held to that trade through season contracts and were not able to avail themselves of the high rates offering for grain; however, it is expected that within the next few days more of the ore fleet will be released to the grain trade and rates will no doubt go still lower. The coal tonnage into Fort William has been almost exclusively handled by U.S. vessels, principally because the Canadian vessels did not desire the business, and there has not been much change in the coal rates."

St. Lawrence Navigation Improvements.

Early in Oct. the Minister of Marine, accompanied by the Deputy Minister and officers of the department, several members of the Shipping Federation of Canada, and representatives of the Quebec and Montreal pilots, made a trip of inspection of the different matters appertaining to or relating to the improvements to navigation now in progress on the St. Lawrence river, between Montreal and Rimouski. A report of the inspection was made for the Shipping Federation, which has just been approved. The report contains a number of recommendations for improving the conveniences at important points, and additions to the aids to navigation with a view of adding to the safety of the route. Following are some of the more important observations and recommendations:

The wharf at Rimouski had the appearance of having been allowed to fall into decay, but considerable improvements and repairs to the cribwork along the east side of the wharf are being undertaken. At present there is being constructed a shed to shelter the transfer of the mails and baggage from the train to the tender and vice versa. It was suggested that a shelter head be constructed at Father Point pier which should be extended for a sufficient distance as to provide a depth of 30 ft. of water at the end at extreme low water. The shelter pier would give protection and shelter for the embarking and disembarking of the pilots, medical officer, etc. The addition of a high gas buoy on the north end of the Red Island bank would enable the channel between Red Island and Princess shoal, 2½

(Continued on page 599.)

THE PINTSCH LIGHT AWARDED THE GRAND PRIZE ST. LOUIS, 1904

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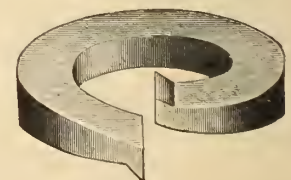
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LIST OF STEAMSHIPS REGISTERED IN CANADA FROM OCT. 15 TO NOV. 15.

Name.	No.	Where and When Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Archibald...	117,196	Gold Rock, Ont., 1905.	Screw 2 N.H.P.	46.0	10.0	5.5	20	14	Kenora, Ont.	M. Noonan, Gold Rock, Ont.
Bear River...	121,807	Shelburne, N.S., 1905.	" 16 "	90.0	20.0	8.4	104	71	Yarmouth, N.S.	New Burrell Johnson Iron Co., Yarmouth
Dandy...	116,805	Hull, Que., 1905.	" 19 1/2 "	72.0	17.0	8.0	77	36	Sorel, Que.	J. Lariviere, Ste. Anne de Bellevue, Que.
Erin...	117,194	Fort Frances, Ont., 1905.	" 1 "	33.0	8.0	3.3	9	1	Kenora, Ont.	Rat Portage Lumber Co., Kenora, Ont.
Evelyn...	117,161	Falmouth, N.S., 1905.	" 9 "	51.0	12.4	5.4	14	9	Windsor, N.S.	W. H. McKinney, Falmouth, N.S.
Farragut...	121,711		" 3 "	27.5	7.1	2.7	8	5	Vancouver, B.C.	Tacoma Steel Co., Van Anda, B.C.
Gov. Moreton...	94,719	Chicago, Ill., 1893.	" 7 "	45.6	12.8	5.4	24	16	Port Stanley, Ont.	C.A. Stanton & P.A. Courtenay, Pt. Stanley
Jas. Mac...	121,709	Toronto, 1905.	" 66 "	108.0	24.0	13.0	313	156	Toronto, Ont.	Can. Shipbuilding Co. (Ltd.), Toronto
John Fraser...	121,705	Parry Sound, Ont., 1905.	" 1/2 "	31.5	8.0	3.2	6	4	Toronto, Ont.	John Fraser, Parry Sound, Ont.
Little Jap...	121,702	Racine, Wis., 1902.	" 1 "	22.5	5.6	2.0	2	1	Toronto, Ont.	Alfred & Donaldson, Parry Sound, Ont.
Louise...	117,124	Kingston, Ont., 1905.	" 2 "	28.8	6.5	2.7	3	2	Kingston, Ont.	J. H. Davis, Kingston, Ont.
Lyackson...	116,934	Valdez Island, B.C., 1905.	" 4 "	47.2	10.8	4.7	22	11	Victoria, B.C.	J. Brazier, Valdez Island, B.C.
Marie Stella...	121,662	St. Alexis, Que., 1905.	" 10 "	45.6	12.8	5.4	24	16	Quebec, Que.	J. Page, St. Alexis, Que.
M. E. Daisley...	117,026	Aspey Bay, N.S., 1905.	" 1 "	54.3	12.5	4.3	17	17	Sydney, N.S.	A. Daisley, Dingwall, N.S.
Mississippi...	121,781	Carleton Place, Ont., 1905.	" 1 "	36.2	7.7	3.6	4	3	Ottawa, Ont.	W. Cook, Carleton Place, Ont.
Mohawk Q'n...	103,396	Deseronto, Ont., 1904.	" 2 "	44.6	9.0	4.0	16	11	Deseronto, Ont.	Oronhyatekha, Deseronto, Ont.
Nightingale...	117,195	Kenora, Ont., 1905.	" 1 "	33.0	7.0	3.8	5	3	Kenora, Ont.	E. Major, Kenora, Ont.
Prince...	117,197	Kenora, Ont., 1905.	" 6 "	27.0	6.0	3.0	3	2	Kenora, Ont.	N. Brunell, Kenora, Ont.
River View...	117,126	Penetang, Ont., 1905.	" 1 "	29.4	7.6	2.9	5	3	Kingston, Ont.	F. Shipman, Ivy Lea, Ont.
Roy Mac...	117,081	Collingwood, Ont., 1905.	" 4 "	44.0	12.0	6.6	23	16	Toronto, Ont.	Hancy and Miller, Toronto
S. and Y...	117,127	Kingston, Ont., 1905.	" 1 "	49.8	9.3	4.0	11	8	Kingston, Ont.	Selby & Youldens (Ltd.), Kingston, Ont.
Slocan...	121,680	Rosebery, B.C., 1905.	Paddle 17	157.7	27.5	6.7	605	338	Vancouver, B.C.	C.P.R., Montreal.
Thames...	121,679	Vancouver, B.C., 1905.	Screw 3	41.4	10.5	4.4	20	14	Vancouver, B.C.	H. A. Sulley, Vancouver, B.C.
Wanderer...	121,677	Vancouver, B.C., 1905.	" 3/4 "	23.0	7.6	2.2	4	3	Vancouver, B.C.	J. L. Inglis, et al, Vancouver, B.C.
W. L...	121,678	Whatecom, U.S.A., 1905.	" 1 "	23.0	4.8	2.2	2	1	Vancouver, B.C.	W. Lomberg, Vancouver, B.C.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM OCT. 15 TO NOV. 15.

Name.	No.	Where and When Built.	Rig.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Adel...	116,803	Sorel, Que., 1905.	Barge	73.5	18.6	4.3	46	43	Sorel, Que.	A. P. E. Lancetot, Sorel, Que.
A. K. Maclean...	116,538	La Have, N.S., 1905.	Schr.	105.5	26.8	11.0	207	176	Lunenburg, N.S.	F. S. Messenger, Petite Riviere, N.S.
Blanche...	121,806	Clyde, N.S., 1904.	Sloop	31.0	11.4	6.0	10	10	Yarmouth, N.S.	J. E. Nickerson, Woods Harbor, N.S.
Bella Goddard...	116,858	Sable River, N.S., 1905.	Schr.	57.6	18.5	8.0	44	44	Shelburne, N.S.	W. Goddard, Burin, Nfld.
Gladys M. Smith...	116,537	Mahone Bay, N.S., 1905.	"	55.2	16.8	6.9	30	30	Lunenburg, N.S.	Jas. Smith, East Chezetcook, N.S.
J. E. Heppell...	121,664	Bic, Que., 1905.	"	76.2	23.2	7.1	74	74	Quebec, Que.	J. E. Heppell, Bic, Que.
Maple Leaf...	116,538	Lunenburg, N.S., 1905.	"	52.2	15.2	7.5	26	26	Lunenburg, N.S.	M. Rhodenizer, Lunenburg, N.S.
Marie Anne...	121,663	St. Simeon, Que., 1905.	"	68.4	19.7	7.5	59	59	Quebec, Que.	S. Talon, St. Simeon, Que.
Mattie & Charlie...	117,043	Clark's Harbor, N.S., 1903.	Sloop	30.0	11.5	5.4	10	10	Barrington, N.S.	R. and F. Nickerson, Clark's Harbor, N.S.
Mayflower...	116,307	West Point, P.E.I., 1901.	Schr.	39.4	12.8	4.5	13	13	Charlottetown, P.E.I.	A. McDonald, Summerside, P.E.I.
Montaigne...	121,665	Ile-aux-Coudres, Que., 1904	Sloop	32.8	14.9	4.6	13	13	Quebec, Que.	A. Tremblay, Ile-aux-Coudres, Que.
Phillippe...	116,804	Sorel, Que., 1905.	Barge	97.0	21.7	5.6	90	87	Sorel, Que.	A. P. E. Lancetot, Sorel, Que.
Rainbow...	116,936	Victoria, B.C., 1905.	"	70.0	26.3	3.4	54	54	Victoria, B.C.	A. A. Sears & C. G. Stromgren, Victoria, B.C.
S. B. Millard...	117,044	Pubnico, N.S., 1905.	Sloop	42.0	14.7	7.5	20	20	Barrington, N.S.	J. M. Symons, Clark's Harbor, N.S.
Scow No. 36...	121,710	Toronto, Ont., 1905.	Scow	124.5	32.2	10.5	421	421	Toronto, Ont.	Canadian Shipbuilding Co., Toronto
Scow No. 37...	121,841	Toronto, Ont., 1905.	"	124.5	32.2	10.5	421	421	Toronto, Ont.	Canadian Shipbuilding Co., Toronto
Three Brothers...	117,046	Clark's Harbor, N.S., 1905.	Sloop	32.0	12.1	6.2	13	13	Barrington, N.S.	T. Enewell, Cape Island, N.S.
W. H. Baxter...	117,162	Canning, N.S., 1905.	Schr.	138.0	32.6	12.4	400	331	Windsor, N.S.	W. H. Baxter, Canning, N.S.

St. Lawrence Navigation Improvements.

(Continued from page 597.)

miles wide and sufficiently deep for all purposes, to be used. It was decided to direct the attention of the Government to the necessity for placing a lighthouse and fog signal at Cape Dogs, and on the shoal opposite Murray Bay. Between Murray Bay and Quebec there are two channels, and it is a question which should be adopted and improved. The whole difficulty as regards the north channel route is owing to insufficient depth of water caused by the sand shoals at the North Traverse, over a length of about seven miles; it is a wide channel with the north shore well defined by highlands. The south channel for the most part is low, having a gradual slope back for several miles; the reefs and shoals extend far out from either side and the navigable channel is encroached upon and contracted by ledges and patches. From Crane Island up to and past St. Thomas' Shoal, there is not sufficient depth of water at low tide. The ship channel here being far from the shore, the distance of permanent land marks increases the difficulties of navigation. The south channel, the delegation was informed, will be dredged first. The dredge for the work is being built at Sorel, and will be ready for work in the spring of 1907. A seagoing steamer will be required as a tender, and a shelter wharf will have to be constructed for the plant. The channel will be 1,000 ft. wide, and provide 30 ft. of water at low water; it will take about five seasons to complete, and will cost about

\$1,000,000, including plant. Range lights were recommended at the following points between Murray Bay and Quebec: Cap Salmon to head of North Traverse; head of Traverse to the pillars past the channel patch; the pillars to Crane Island; Beaugau bank and Crane Island to St. Laurent wharf d'Orleans. It was suggested that a fog horn be provided at the lower pier at Traverse, that the light at Bellechasse be changed, and that the power of the lights at Orleans Island, Crane Island and the Quebec leading lights be increased.

So far as the river above Quebec was concerned, the Superintendent Engineer of the Department stated that as soon as the Longueuil cut was completed in the summer of 1906, it was proposed to place four rock dredges at work on widening and deepening the channel at Cap Charles and Cap a la Roche, and the Federation recommended that the channel be also widened to 450 ft., and deepened to 30 ft. at St. Augustin bar, and Batiscan traverse. The Federation recommends the following improvements to lights and buoys: light on north pier Quebec Bridge, Cap Rouge; gas buoy at Cap Sante shoal; lighting and buoying channel between Nicolet and Champlain; three buoys marking anchorage to be placed at Isle aux Raisins; entrance light on guard pier Montreal harbor; increased power of lights at Maisonneuve; leading light in inner harbor; buoy near Longueuil to be changed to clear more completely Poupillier a Gagnon. It was recommended that the channel at Hay Island be swept, and that telephone stations to report vessels be provided at 11

points on the north shore, and 18 on the south shore.

The Minister's attention was also directed to the necessity of providing another ice-breaking steamer to assist the Montcalm, to be fitted with Marconi wireless telegraph apparatus, and stationed in the Gulf to assist vessels through the Cabot straits, where vessels have been frequently ice-bound for weeks in the early part of the season.

Notices to Mariners.

The Department of Marine has issued the following:

No. 96. Oct. 9.—British Columbia—223. Broughton Strait, Malcolm Island, Graeme Point, lighthouse established. 224. Pender Island Canal, depth of water.

No. 98. Oct. 14.—British Columbia—226. Vancouver Island, Victoria harbor, Laurel Point, pole light established.

No. 99. Oct. 16.—Quebec—227. Gulf of St. Lawrence, Anticosti lightship, removal to winter quarters.

No. 100. Oct. 17.—Ontario—230. Georgian Bay, Western Islands, double top rock, change in character of light. 231. Georgian Bay, east side, approach to Parry Sound, Red Rock, change in character of light. 232. Lake Superior, Caribou Island, change in character of light.

No. 101. Oct. 19.—Ontario—234. Lake Huron, north channel, Aird Island, Little Detroit, steambarge sunk.

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TERMS OF PAYMENT.

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" " 4.00 " " 95.85, " " " 32.64 " " 80.00	
" " 4.50 " " 107.85, " " " 36.73 " " 90.00	
" " 5.00 " " 119.85, " " " 40.81 " " 100.00	
" " 5.50 " " 131.80, " " " 44.89 " " 110.00	
" " 6.00 " " 143.80, " " " 48.98 " " 120.00	

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

DISCOUNT FOR CASH.

If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. on five-sixths of the purchase money.

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Southern Pacific Terminal Co.'s Elevator, Galveston, Texas.....	".....	1,000,000 "
Erie R. R. Transfer & Clipping House, Chicago, Ill.....	".....	100 cars in 10 hrs.
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.....	".....	1,500,000 "
Burlington Elevator Co., Peoria, Ill.....	".....	500,000 "
Canada Atlantic Railway Elevator, Coteau Landing, Que.....	".....	500,000 "
Northern Grain Co., Manitowoc, Wis.....	".....	1,350,000 "
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Lv. Montreal	*9.00 a.m.,	*7.45 p.m.
Arr. Lowell	*7.29 p.m.,	*6.37 a.m.
" Worcester	*9.04 " "	*9.19 " "
" Boston	*8.15 " "	*7.30 " "

VIA G.T.RY., AND WHITE RIVER JCT.

Lv. Montreal	*9.01 a.m.,	*8.40 p.m.
Arr. Lowell	*6.11 p.m.,	*7.17 a.m.
" Worcester	*9.04 " "	*9.19 " "
" Boston	*6.55 " "	*8.05 " "

VIA G.T.RY., WEST SHORE & ROTTERDAM

Lv. Toronto	*4.10 p.m.
" Niagara Falls	*6.30 " "
" Buffalo	*4.30 a.m., *7.20 " "
Arr. North Adams	*1.08 p.m., *5.11 a.m.
" Worcester	*4.55 " *9.59 " "
" Boston	*5.20 " *9.50 " "

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The steamship subsidies paid by the Dominion Government during the last fiscal year were \$1,027,074 against \$851,747 for the previous year.

The use of the red ensign, with the arms of Canada on the fly, is permitted under an Admiralty order to Canadian vessels when afloat only. It is a mercantile flag only, and has no significance when used elsewhere.

No. 102. Oct. 23.—New Brunswick—235. Bay of Fundy, Gannet Rock, tower increased in height, new iron lantern, change in character of light.

No. 103. Oct. 25.—Quebec—236. River St. Lawrence below Quebec, Beaujeu Channel, gas beacon established.

No. 104. Oct. 27.—Ontario—237. Lake Ontario, Bay of Quinte, Trenton, range lights.

No. 105. Oct. 28.—Ontario—238. Great Lakes, lights to be kept in operation until Dec. 15. The notice adds that the lights will be kept in operation later than Dec. 15 if there is any possibility of navigation after that date.

No. 107. Nov. 6.—Ontario—240. Lake Erie, Pelee passage, position of wreck. 241. Lake Huron, entrance to Georgian Bay, Cove Island, change in fog alarm.

Stranding of The S.S. Bavarian.

The investigation into the circumstances attending the stranding of the Allan Line str. Bavarian was opened at Quebec, Nov. 17, before Chief Justice Routhier, of the Admiralty Court, who was assisted by Commander Spain, R.N., Wreck Commissioner, and Lieut. Pennell, R.N., sailing master of the special cruising squadron of the British Navy which recently visited Montreal. The Government, the Allan Steamship Co., and the Shipping Federation of Canada, together with the captain of the Bavarian, and the pilot in charge, were represented by counsel. The enquiry is looked upon by marine men as being of the utmost importance to the shipping interests of the country. The court gave judgment Nov. 20, suspending the pilot's certificate until July, 1907.

The Bavarian is a twin screw steel steamer, 6,714 tons register, a sister ship to the Tunisian, and was placed on the route in 1901. She was under charter to the Imperial Government during the Boer War as a troopship and has always had the reputation of being a thoroughly comfortable and seaworthy vessel. Her commander is Capt. J. Brown, known among trans-Atlantic mariners as "Atlantic" Brown, which name he earned in consequence of his feat of swimming ashore with a line, thereby enabling a large number of the passengers and crew of the White Star liner Atlantic to be saved, when she went ashore off the coast of Nova Scotia in the spring of 1873. The Bavarian left Montreal with a full general cargo and about 250 passengers on the morning of Nov. 3, bound for Liverpool. Quebec was reached in due course, and she left that port for Rimouski to take on the mails at 7 p.m., in a sleety snowstorm, P. Lachance being the pilot in charge. About 11 o'clock she ran aground on the Wye rocks, about a quarter of a mile out of the regular channel. It was about half-tide when she struck and it was not until the tide fell that the danger of the position was realized. When the tide was at the lowest point, about 4 a.m., the reef pierced the steamer's bottom, shoved the boilers out of place, and raised the smokestack 5 ft. from its original position. There was an inrush of water owing to a bulkhead giving way. The passengers were landed in Quebec, Nov. 4, and lighters were sent for to move the cargo. A survey showed that the earlier reports to the effect that the steamer's back had been broken were incorrect and it was estimated she would be got off by the end of the month. The steamer and cargo were fully insured. The underwriters of the steamer effected a reinsurance at Lloyds, London, Eng., against total loss, at 40 guineas per cent.

An official of the Allan line said in an interview:—"The Bavarian went ashore because the light on the Marguerite tail buoy was not lit, and the pilot mistook for it the light on the St. Thomas shoal. The light had been out for two or three days and yet neither the captain of the Bavarian nor the agents of the line in Quebec had been informed of the fact. The weather was not particularly bad. There had been some snow flurries, but these had passed before the Bavarian got much

beached to prevent her sinking in deep water.

Allan liner Victorian grounded near Cape St. Charles. Cargo partially discharged and temporary repairs made at Quebec; permanent repairs being made at Glasgow, Scotland.

Sept. 5.—Str. Hosanna run down and sunk by str. White Star, running as the Empire.

Oct. 23.—Collision between the Euphemia and Tordenskjold.

The str. Polino ran aground between Champlain and Cape Madelin in Aug.



C.P.R. STEAMSHIP EMPRESS OF BRITAIN.

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From a painting by Arthur Cox

beyond Quebec, and the lights on Grosse Isle were plainly visible to her officers. The sole reason for the accident was the absence of the light on Marguerite buoy and the ignorance of the fact on the part of the ship's officers. As regards the position of the Bavarian, she is much less than half of her own length on the outside of the buoy. The pilot came to comprehend the situation too late to save the ship. He did reverse the engines and starboard the helm, but it was too late to help him."

The Department of Marine officials state that the light at Grosse Isle had nothing to do with navigation up and down the river, but that it was for the purpose of guiding ships into quarantine. This light is fully a mile out of the channel, and is only used to denote to incoming vessels that they are to come to anchor there for inspection. The officials at Grosse Isle had informed J. U. Gregory, the Department's agent at Quebec, Nov. 3, that the light there was out, and it had been decided to have it relighted. The stranding was specially discussed at a meeting of the cabinet Nov. 6, and its probable effect on the insurance of vessels coming to Montreal. The Minister of Marine assured his colleagues that a most searching investigation would be made and the responsibility for the accident fixed. On Nov. 10, the Minister, together with Col. Gourdeau, Deputy Minister, and Commander Spain, Wreck Commissioner, went over the route followed by the Bavarian, and took note of all the lights, buoys, etc., marking the channel, and the points of danger in the river to be avoided.

The present is the fifth more or less serious casualty occurring on the St. Lawrence route during the present season. The casualties previous to the stranding of the Bavarian were:

June 12.—Grounding of the Leyland liner Tampican off Longue Pointe, Montreal. Lightened and towed off without extensive damage.

July 27.—Grounding of Allan liner Corinthian off St. Helen's Island, Montreal. Lightened and towed off without extensive damage.

Sept. 1.—Leyland liner Virginian struck in the narrows near Crane Island and was

The Grain Carriers' Case Stated.

The following letter was addressed to the Secretary of the Board of Railway Commissioners on Oct. 25, by A. A. Wright, of Toronto:—"As one of the many owners of Canadian steel grain vessels on the Upper Lakes, I beg to call the attention of the Board of Railway Commissioners to the present intolerable situation at Georgian Bay railway terminals with respect to the movement of eastbound grain traffic, all of the elevators being full, and railway facilities insufficient. The C.P.R. at Owen Sound and the G.T.R. at Midland, Collingwood and Meaford virtually refuse, except at their own discretion, to receive from lake vessels export grain brought down from Port William, unless to be forwarded from Georgian Bay elevators after the close of navigation at the port of Montreal. This leaves Depot Harbor on the G.T.R. Ottawa division, from which point the daily shipments under present restricted car supply average only 100,000 bush, as the only available outlet at Georgian Bay for the great Northwest crop, while the Canadian vessels, which are too large for the Welland Canal, can deliver 200,000 bush. per day if a sufficient number of cars were furnished to make room for this quantity in the elevator.

"The G.T.R. officers, whose attention has been called to this matter, say conditions will not change this fall, and give the time-worn excuse of scarcity of cars and engines, which may fully explain the position of the subordinate officers who are doing their best with the equipment under their control, but is no excuse for the general management, who should see that sufficient cars and engines are provided.

"While this unsatisfactory condition obtains with respect to freight originating in Canada, three lake vessels of U.S. register now controlled by the G.T.R., viz., Arthur Orr, George Orr, and Kearsarge, are bringing into Depot Harbor at least 300,000 bush. of grain weekly from Chicago, which is handled in turn with Canadian vessels at the elevator. The regular acceptance of this U.S. grain by the G.T.R. reduces the facilities furnished to Canadian shippers to 50 or

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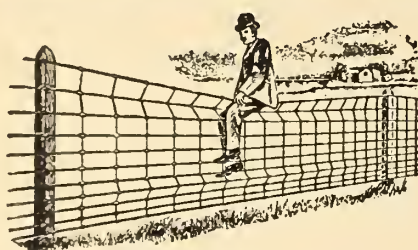
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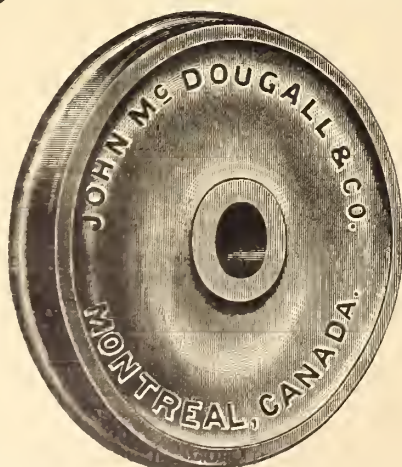
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60 cars per day, or only sufficient to take what two of the Canadian steamers, viz., W. D. Matthews and Midland King, can deliver weekly. If this state of affairs is to be permitted to continue, then the balance of Canadian shipping must either tie up, go into other business or submit to long delays at elevator lake ports, waiting their turn to be unloaded at the will and pleasure of the railways.

"I maintain that no railway company chartered for the general advantage of Canada has the right, because it will not construct more cars and engines than it can pay for out of its current earnings, to tie up the commerce of a country in the manner indicated, while it hauls from Chicago to U.S. seaports many times the tonnage it refuses to haul for Canadian citizens. If the railways claim they are doing all they should be required to do in moving only 100,000 bush., or equal to 100 cars per day from Depot Harbor (including U.S. grain), and thereby practically cutting the earning power of vessels in two by delays in unloading, it follows that they can at their discretion reduce that to 10,000 bush. or 10 cars per day, and utterly destroy the earning power of vessels which cannot go through the canals, and as a natural consequence utterly paralyze the movement of grain from the Northwest.

"As an indication of the loss to which vessel-owners are subjected by the failure of railways to provide cars at elevators I would say that the delay has caused the steamship Tadousac to lose one trip this month. This means a direct loss to me, by reason of the reduction of steamers earnings, amounting to \$3,000. Estimating the loss to other vessel owners trading to the Georgian Bay on this basis, it will approximate a total of \$25,000 for the month of October, a sum sufficient (in one month) to pay 2½% on the value of all the rolling stock required to promptly move from the Georgian Bay to Montreal all the grain brought down to the bay during the season of navigation.

"If the G.T.R. is desirous of relieving the situation and assisting in the movement of the Canadian crop in preference, I would respectfully suggest as a means to that end that it withdraw from handling by its own boats this U.S. traffic received at Depot Harbor or other elevator lake ports destined to seaboard ports in the U.S., until it has first taken care of freight originating in Canada. This would leave a far greater proportion of their cars available for the movement of purely Canadian traffic; or, if this is not sufficient, a portion of the rolling stock now occupied in hauling traffic from Chicago to Portland might be diverted to Canadian business. If the G.T.R. would handle from Midland the same quantity as it is taking from Depot Harbor the pressure would be greatly relieved, and before navigation closes each boat could even yet move five or six cargoes via Canadian routes instead of being restricted to two or three, as they will undoubtedly be with the facilities at present afforded, and forced to let the balance of the Northwest grain crop move from Fort William to Buffalo or other ports in U.S. vessels.

"By the Railway Act, 1903, sections 214 and 253, the railways appear to be required to furnish adequate and reasonable facilities for the receiving and forwarding of this grain traffic, and I would respectfully request your Board, by the powers vested in it by secs. 23, 24 and 32 of the Railway Act, to investigate and inquire into the matter herein complained of for the purpose of determining what relief may be granted.

"The urgency of the matter will be at once apparent when it is remembered that we are nearing the close of navigation. At present the steamship Neebing, which ar-

rived at Depot Harbor Sunday morning, Oct. 22, is still unloading, while the steamer W. D. Matthews, which arrived the same day, is tied up waiting to be unloaded. The Arthur Orr and Wexford are waiting behind the Matthews, and other steamers are loading at the head of Lake Superior for the same port. The same intolerable situation has existed now for 15 or 20 days, and no apparent effort has been made to relieve the situation. The Matthews lay six days on her last trip waiting to be unloaded, and will likely be delayed five days this trip, while one day should be sufficient for this work. Unless something is done the Matthews will be delayed as much or more next trip."

See also under The Car Shortage Question on an earlier page.

R. & O. Navigation Co.'s Construction.

The Richelieu and Ontario Navigation Co. has planned several additions to its fleet, to be constructed by the season of 1907, and a number of extensive alterations to its existing vessels, and hotels. We have been officially advised that a contract will be closed very shortly for a new St. Lawrence River rapid steamer, 230 ft. long, by 44 ft. beam, over the guards. This steamer will have a carrying capacity of 1,000 passengers and be built specially to suit the service, the hurricane and saloon decks being built and covered in such a way as to give passengers an excellent opportunity to view the rapids. One hundred staterooms will take care of the increasing westbound business. Particular attention will be given the dining-room and kitchen arrangements, the dining-room being located on the main deck aft, and will be very bright, with large observation windows similar to the new str. Montreal.

Specifications and plans of a new Quebec, a sister ship to the Montreal, and for the same route, are under consideration and it is hoped she will be ready for the season of 1907. It is likely that the vessel's hull and machinery will be constructed by the ship-builders, and her upper works and decorations at the company's works at Sorel, Que.

The company is also figuring on a new steamer for the Montreal-Hamilton line. These steamers follow the Canadian channel, stopping at all ports and going through the Bay of Quinte, and it is the intention to have the new boat of a different type from those already on the line. She will have a greatly increased carrying capacity, and the most modern equipment for handling the same expeditiously. The passenger accommodation also will receive special consideration.

The alterations to the existing fleet comprise: Str. Toronto. The dining-room is being moved from the gallery deck to the main deck, and being replaced by staterooms. This will give her equal accommodation to the str. Kingston, and ensure an excellent and prompt service, the pantry and kitchen arrangements being most complete and modern. The new dining-room will seat about 160 persons. This steamer was put into dry dock at Kingston, Ont., recently and her bottom scraped and painted, which will increase her speed materially. When examined, after having been in service since 1898, she had not a dent in any of the plates of her hull. The str. Kingston is to be painted and renovated throughout, besides receiving the customary overhauling, and her dining-room so arranged as to give increased accommodation. The str. Murray Bay will have her hurricane deck altered to as near as possible the plan of her sister ship, the str. St. Irene, including a ladies' saloon with observation windows and hurricane deck promenade. The str. Tadousac will have her present wheels replaced by small feathering wheels, thereby gaining several staterooms and minimizing vibration. The ferry steamers Longueuil, Boncherville,

and Laprairie will have their upper works rebuilt and altered, which will add to the comfort and convenience of passengers.

In addition to the above the company is making the customary repairs and renewals to the balance of the fleet at Sorel, Que., and to its wharves and shore properties.

At the company's hotel, Manoir Richelieu, Murray Bay, Que., a large swimming pool is being constructed. The salt water of the St. Lawrence will be pumped through heaters, raising its temperature to between 60° and 70°. The entire pool will be open to the sun, and with the dressing-rooms will be just south of the present billiard room, to which the bowling alleys will be added, thus combining all these sports. In addition, over 30 private fresh and salt water baths are being added. Extensive improvements are also being made at Tadousac, where the company operates the Tadousac Hotel. The company having leased five lakes from the Government, is building a permanent camp and installing some 14 fishing boats for its guests.

The Elder Dempster Co. is arranging to establish a steamship service from Boston, Mass., to Australia. This, it is said, will have the effect of diverting some of the traffic which is now carried over the C.P.R. to Vancouver, and thence by the Canadian-Australian line.

The Minister of Marine has had under consideration the question of Government inspection of vessels at inland ports to prevent overloading, in the same way as is done at Montreal and other ports in connection with ocean-going vessels. He says if the existing law is not wide enough to cover this, the necessary amendments will be introduced next session of the Dominion Parliament. The Seamen's Union at Detroit, Mich., has decided to get up a petition favoring the establishment of a load line.

The Underwriters' Salvage Co. has been incorporated under the Dominion Companies' Act, with a capital of \$500,000 and offices at Toronto, "to buy, sell, deal in, and own outright all kinds of salvage," and among other lines of business to act as valuers and adjusters of marine losses; to carry on a general navigation and grain elevating business, to purchase and sell ships, hulls, barges, vessels and boats of every description. The company is also authorized to acquire the grain brokerage and salvage business now carried on by S. McNairn, and to pay for the same in paid-up stock. The provisional directors are: E. E. Wallace, R. W. Eyre, J. W. Curry, J. T. Eastwood and Miss O. B. Clarke, Toronto.

The Department of Marine has under consideration the establishment of several marine schools, at which the system of instruction will be uniform with that adopted at the marine schools established during the past two years at Victoria, B.C.; St. John, N.B.; Halifax and Yarmouth, N.S. The additional schools it is proposed shall be established at Vancouver, B.C.; Toronto, Kingston, Ont.; Montreal, Quebec, Que.; North Sydney, Lunenburg, N.S.; Charlottetown, P.E.I. The instructors will be in every case, if possible, the examiners of masters and mates at the several ports. The schools will be free to all who wish to attend: the instruction will be general, seamanship principally; rule of the road, and magnetism of the compass will be subjects which shall be thoroughly demonstrated. At places where advanced students will be in attendance, a few evenings will be devoted to the theory of navigation. Two lectures will be given weekly, and a total of 30 during the winter months, beginning in Jan. of each year. The lecturers at the schools at present established are Capt. J. Gaudin, Victoria, B.C.; Capt. R. Cole, St. John, N.B.; Capt. E. B. Timling, R. N., Halifax, N.S.; Capt. J. Murphy, Yarmouth, N.S.

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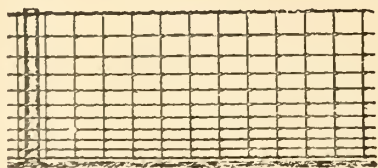
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Maritime Provinces and Newfoundland.

J. A. Gordon has been appointed harbor master for Brudenel, P.E.I.

S. O'Brien has been appointed harbor master for Noel, N.S., and W. O'Brien a measuring surveyor for shipping at Windsor, N.S.

Orders are reported to have been placed with builders in Newfoundland for 15 fishing schooners to be built at Green Bay, Bonavista Bay, Trinity Bay and Conception Bay.

The Dominion cruiser Canada is being given an overhaul at the Government dock, Halifax, prior to being despatched on a training cruise to the West Indies, early in Jan., 1906.

An order-in council has been passed by the Dominion Government defining the boundaries of the harbor at Tenny Cove, N.S., and D. Lingard has been appointed harbor master there.

The stores of the Department of Marine and Fisheries wharf at Halifax have been moved to the new wharf at Dartmouth, N.S. The Halifax wharf will be given over to the Intercolonial Ry. early in Dec.

The license of the Eastern Steamship Co., of Portland, Me., to do business in New Brunswick has been renewed for a year from Nov. 1, under the terms of the act referring to extra-provincial companies.

The Glasgow, Scotland, steel steamer Hilda, 1,091.65 gross tons, 648.60 register tons, and equipped with engines of 120 h.p., was offered for sale at Halifax, N.S., Nov. 22, under mortgage foreclosure proceedings.

Capt. G. T. Lewis, Digby, N.S., is having built at Shelburne, N.S., a small steamer, which it is expected to have launched early in Dec. Her dimensions are:—length, 70 ft.; breadth, 18 ft.; depth of hold, 7 ft. 6 in.

A steamer to be named the Tricolor is under construction in England for the Wabana ore trade. She will have a carrying capacity of 7,000 tons, and will be chartered to the Dominion Iron and Steel Co. W. Wilhelmsen of Tonsberg, Norway, is the owner of the new steamer, as well as a number of others engaged in the same trade.

The Department of Marine has not made any decision as to the point at which the ice-breaking str. Montcalm will be stationed during the winter, but we are advised that the probabilities are that the vessel's services will be urgently required elsewhere than at North Sydney, N.S., where press reports stated she would be stationed.

The repairs to the str. Christian Knudsen have been completed, and she has been chartered for the winter to run between New Orleans, La., and Liverpool, Eng., with cotton. The steamer was badly injured in a collision with the str. Thrift, near Sydney, some time ago when on her summer route between Sydney, N.S., and Montreal in the coal trade.

The first auxiliary fishing schooner built at Shelburne, N.S., was launched there Oct. 27. Her dimensions are:—length, 70 ft.; breadth 17 ft.; depth of hold, 8 ft. 6 in.; register tonnage, 35 tons. She is rigged with pole masts, and will in light winds and calms be propelled by a screw driven by a 20 h.p. kerosene engine, capable of making six knots an hour.

D. McNicoll, Vice-President C.P.R.; A. Piers, Manager C.P.R. Steamship Lines, and Col. H. H. McLean, local solicitor at St. John, N.B., were at L'Etang, N.B., recently, and as some engineers connected with the G.T. Pacific Ry. visited the place during the summer it was reported locally that it was intended to develop it as a harbor for ocean-going steamers. Mr. McNicoll in answer to an enquiry, the Montreal Witness says, stated that so far as the C.P.R. was concerned there is nothing whatever in the story.

The electrical equipment of the new ferry steamer Ludlow built for the St. John, N.B.,

City Council, consists of two 4 k.w., 110 volt dynamos, 600 revolutions per minute, supplied by the Canadian General Electric Co., each direct connected to a single cylinder 4½ by 4 in. upright high speed engine, the steam connection being arranged for 80 lbs. pressure. The two wire system is used throughout the boat, but provision is made for the signal lamps and about 25% of the cabin lamps in case of breakdown of one of the generators by using a common return negative.

We are informed that work has already been commenced at Swan, Hunter & Wigham Richardson's yard, Newcastle-on-Tyne, Eng., upon the new steamer for the Charlottetown Steam Navigation Co., the general dimensions of which were given in our last issue, and that it is expected she will be launched in May, 1906. The steamer will be fitted with bilge-keels, to reduce rolling to the minimum; and water ballast tanks. The deck house will provide accommodation forward for the captain, ticket office, post office, and dining-room to seat 40 persons; while aft is the general saloon, two staterooms, ladies' cabin and lavatories, and smoking-room. The steamer will be provided with one steel and three wood lifeboats, each having a length of 24 ft., a breadth of 7 ft., and a depth of 3 ft.; one 20 ft. dinghy, and one 19-ft. gig. The crew will be accommodated forward and the clerks aft.

The plans for the proposed new ice-breaking steamer for the Prince Edward Island-mainland route have been prepared by C. Duguid, a British naval architect, and have been considered by a committee consisting of Capt. Finlayson of the str. Minto, Capt. Brown of the str. Stanley, and H. H. N. Rattenbury, of Charlottetown. The plans are for a twin screw steel steamer, 260 ft. long, 42 ft. beam, 18 ft. draft, and 5,000 horse-power. The bow is of the splitting type above, and the flat crushing below. The object is to split the piled up ice as well as crushing the pans. A report from St. John states that the committee has completed its investigations, and in a report states that previous experience with winter navigation has proved that after the steamers are withdrawn from Charlottetown the Georgetown-Pictou route is the safest and most reliable. It is taken for granted the new steamer will be used principally on these routes. The new boat should be 250 ft. long, 41 ft. beam, 20 ft. deep amidships, 16 ft. draught, and water ballast in stern to put her down at least 4 ft. additional aft, and with a speed of 18 knots, with bunkers and water ballast tanks full, the engines to be triple expansion, and placed well aft to afford more cargo space and relieve the necessity for so much water ballast. The water ballast tanks should be subdivided fore and aft, so that either could be emptied or filled as might be required. Pumping machinery should be large enough to be able to transfer the full ballast from one part to the other in 15 minutes. The propeller should be unbreakable, of the best material. The steamer should be provided with search lights of the most modern design, and have a separate dynamo of sufficient power to make an object visible at three miles.

Province of Quebec Shipping.

The Canadian Towage and Transportation Co., Montreal, is being wound up, D. Anderson being the liquidator.

The dredge work on the St. Lawrence ship channel between Quebec and Montreal was completed for the season Nov. 25.

About 400 ft. of the Dominion Government wharf at Sorel, Que., slipped into the Richelieu River, Nov. 11, sinking the Government str. Alpha.

The Norwegian str. Hero loaded a cargo of

225,000 bush. wheat and corn at Montreal for Europe, Oct. 27. The crew included a number of Chinese, for whom the owners had to put up bonds.

The Imperial Service Medal has been granted by the King for lengthened service to the following lightkeepers in the service of the Department of Marine:—H. Robillard, Isle Perrot, Que.; P. Boulaine, Lark Island, Que.; E. Simard, Monte duc Lac, Que.

A company is being formed at Roberval, Que., with a capital of \$50,000, to carry on a general navigation business on Lake St. John and adjacent waters. The projected route will be about 85 miles. T. J. Marcoux, H. J. Lyons and R. Dupont are principally interested in the project.

The Minister of Marine has announced that next session of the Dominion Parliament a bill will be introduced to reorganize the Montreal Harbor Commission. The proposal is to have a board of experts who shall devote the whole of their time to the work; the members to be appointed by and responsible to the Government.

The Sincennes-McNaughton Co. have completed plans for a new tug to be built at Sorel, Que., and to be ready by June, 1906. The hull will be 100 ft. long, and will be fitted with engines of 900 h.p. The engine and boilers will be constructed in Scotland and will be brought over in sections and put together at Sorel.

The extension to the breakwater at Quebec will, it is expected, be completed in the fall of 1906. It will be 1,162 ft. long. During Nov. the contractors were engaged in filling in the backing of the concrete wall, having six dredges at work. The Harbor Commissioners suggest that the breakwater should be extended for a further distance of 300 ft.

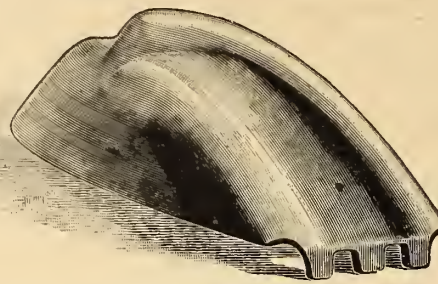
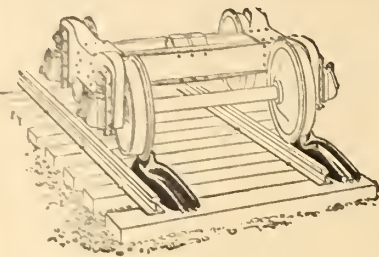
From the opening of navigation to Oct. 31 of the current year, 759 seagoing vessels, having a tonnage of 1,759,639, arrived in Montreal, as compared with 742 vessels, having a tonnage of 1,719,674, in 1904. The last steamer was scheduled to leave the port for the season Nov. 23. In 1904 the last departure for sea was Nov. 27, and the final closing of navigation was Dec. 9.

The Montreal Harbor Commissioners have adopted a resolution in favor of constructing a new shore wharf, 250 ft. wide, from Victoria pier, along the front, with the exceptions of sections 23 and 24 recently reconstructed. The length of the wharf will be 10,720 ft. including the reconstructed sections and the estimated cost of the work is \$3,044,329, excluding the cost of the railway tracks.

The officers of the St. Lawrence Floating and Wrecking Co. for the current year are: President, J. W. Harris; First Vice-President, H. A. Richardson; Second Vice-President, P. G. Martineau; Secretary-Treasurer, J. Durand; General Superintendent, J. B. D. Legare, Quebec; Auditor, G. Gauthier; Legal Adviser, F. D. Monk, M.P. Except where otherwise stated all the officers belong to Montreal.

The Quebec Transport Co. has been incorporated under the Dominion Companies' Act, with a capital of \$100,000 and offices at Quebec, for the purpose of carrying on a shipping and forwarding business, and in connection therewith to acquire steam and other vessels, wharves, warehouses, etc. The provisional directors are: T. Harling, J. G. Scott, W. Power, J. T. Ross, A. E. Doucet, of Quebec. The company put on a chartered steamer on a route between Quebec and Great Britain in Sept.

Residents of the Baie des Chaleurs district have petitioned the Dominion Government to subsidize a steamship service along the north shore of the St. Lawrence. At present a schooner gives a fortnightly service from Gaspé, and the proposal is to put on a steamer to give a weekly service connecting at Gaspé with the steamers Eileen, Quebec and Gas-



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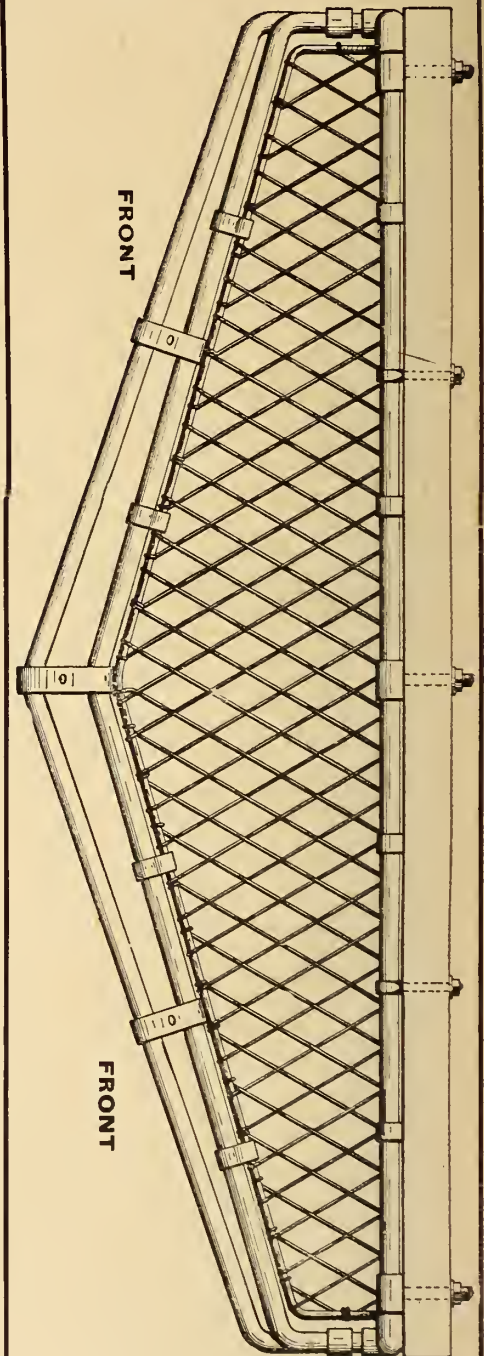
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The first of the two trans-Atlantic liners being built for the C.P.R., was launched at the yards of the Fairfield Shipbuilding Co., Glasgow, Scotland, Nov. 11, and was named Empress of Britain by Mrs A. Piers, wife of the Manager of the C.P.R. steamships. The Empress of Britain is a steel steamer 570 ft. long and 65 ft. beam. She is fitted with twin screws and her engines are cal-

culated to give a speed of 20 knots an hour. The accommodation for passengers will provide for 300 first class, 350 second class, and 1,000 third class. A sister ship, to be named the Empress of Ireland, is expected to be launched from the same yards Dec. 11. An illustration of the newly launched steamer is given on pg. 601.

pesian. The route would be from Gaspé to Natashquan and Blanc Sablon, touching at points on Anticosti Island and the north shore. J. X. Lavoie, Perce, is the principal mover in the matter.

Commander Spain completed, Nov. 3, his investigation into the circumstances attending the collision between the German str. Euphemia and the Norwegian str. Tordenskjold, off St. Antoine, 40 miles above Quebec, Oct. 23, and reserved judgment. The investigation into the stranding of the Victorian was completed by Commander Spain at Montreal, Nov. 7, and judgment was also reserved. It is not anticipated that judgment in either case will be given out for some time, as Commander Spain was immediately engaged at Quebec, as one of the nautical assessors, in the enquiry into the standing of the Allan liner Bavarian, reference to which is made elsewhere.

Ontario and the Great Lakes.

Mrs. Henry, wife of Capt. Jno. Henry, of the str. Nipissing, died in Gravenhurst, Ont., Oct. 23.

J. Yeats has been appointed wharfinger at Midland, Ont., and D. Hay wharfinger at Honora, Ont.

Capt. Jas. Wilson, Bronte, Ont., has been appointed wharfinger at the Government wharf there.

The U.S. str. Frank Rockefeller went ashore on Ile Royale, near Fort William, Nov. 10, and is in a dangerous position.

The Crawford Tug Co. is having the machinery removed from the steam barge E. S. Pearse, and will fit her out as a tow barge.

The Dominion Transportation Co. has decided to lay up its six tugs on the Georgian Bay Division at Owen Sound for the winter.

The Farrar Transportation Co. has been considering the purchase of an 8,000 ton steamer, but has not yet arrived at any decision.

The str. Maud D., and the fleet of houseboats has been sold by D. Davidson, of Penetanguishene, Ont., to A. A. Osborne and J. L. Ferrier.

The tug Lakefield, owned by Morin and Grey, was burned to the water edge in Deer Bay, Ont. She was built in the spring at a cost of \$3,000.

The Marquette and Bessemer Dock Co. has put on a new ferry steamer, Marquette and Bessemer No. 2, to run between Conneaut, Ohio, and Port Stanley, Ont.

The Pioneer Steamship Co., Buffalo, N.Y., has filed a libel against the Canadian str. Turret Crown, for \$6,000 damages to the str. Martin Mullen, at Lorain, Ohio, Oct. 25.

The Cleveland, Ohio, str. Philip Minch, 2,010 tons, was chartered by Winnipeg grain merchants, Oct. 27, and subsequently loaded 340,000 bush. of wheat at Fort William, Ont.

The hull of the burned str. Melbourne was towed to Kingston by the Donnelly Wrecking Co.'s str. Donnelly. The underwriters have sold the hull to B. W. Folger for \$1,000.

The Imperial Service Medal has been granted by the King to lockmasters, J. Todd, Rideau canal; R. Higgins, C. B. Hare, Welland canal, and to Amelia Cutler, "lockman," Williamsburg canals.

Another leak has been discovered in the upper reach of the hydraulic lift lock on the Trent Valley canal, at Peterboro', Ont., and it is estimated that the repairs will cost about \$20,000.

The str. Midland Queen was chartered by the Northern Navigation Co. from the beginning of Nov. to the end of the season, to assist with the rush of freight between Sarnia and Lake Superior ports.

Capt. J. McCaul, of Wolfe Island, Ont., died there Nov. 7, aged 82. He was employed by the Calvin Co. for many years, and was subsequently master of the William Penn.

Ex-Congressman J. Simpson, who died at Wichita, Kan., Oct. 23, was born in New Brunswick, and for a number of years was engaged as a master mariner on the Great Lakes.

J. A. Goodearle, Assistant General Manager of the Thousand Island and River St. Lawrence Steamboat Co., was presented with some cut glassware by the employes, on the occasion of his marriage at Kingston, Ont., Nov. 6.

The Lake Erie Navigation Co., which was incorporated under the Dominion Companies' Act, Dec. 7, 1901, has had its license to do business in Ontario, under the Act respecting the licensing of extra-Provincial companies, revoked.

The Dominion Government hydrographic survey str. Bayfield returned to Owen Sound, Ont., Nov. 9, the survey work on Lake Superior having been completed for the season. The work was interrupted a good deal by fogs and storms.

A survey party in charge of R. B. Rogers, Chief Engineer of the Trent Valley Canal system, is engaged in making a survey of the northern lakes draining into the Gull River, which may be used as basins or feeders for the canal.

The Executive Committee of the Lake Carriers' Association has expressed an opinion in favor of the construction of a channel at Lime Kiln crossing, at the mouth of Detroit River, and the construction of a new lock at Sault Ste. Marie, Mich.

Whalen and Bowman have reached an agreement with the Fort William, Ont., town council with regard to the construction of a dry dock, and the establishment of a marine repair shop there. The site chosen is on Island no. 2, McKellar River.

The vessels passing through the Welland canal during Oct., carried 4,000,000 bush. of wheat, corn and oats, in addition to large quantities of barley and flax seed. Over 2,000,000 bush. of Canadian wheat were carried through the canal during the month.

Pere Marquette ferry no. 14, which has a capacity of 27 cars, has been put on the route between Detroit, Mich., and the new pier at Windsor, Ont., near the C.P.R. dock. The company's ferry International will continue to run between Port Huron, Mich., and Sarnia, Ont.

The str. Turbinia left Hamilton, Oct. 28, for the Atlantic coast, and while passing through the canal at Cardinal, Ont., lost several blades off one of her propellers. Repairs were made at Montreal, and she proceeded to Halifax, N.S., from which point she went to Kingston, Jamaica, from where she will run to Cuba and other West Indian Islands.

The Toronto Motor Boat Co. has been incorporated under the Ontario Companies' Act, with a capital of \$40,000, and offices in Toronto, "to carry on the business of manufacturing, buying, selling and otherwise dealing in boats, launches, gasoline engines and supplies." The provisional directors are:—J. C. McLachlan, J. G. Robinson, W. H. Cox, of Toronto.

The Opemican River Improvement Co. has been incorporated under the Ontario Companies' Act, with a capital of \$35,000, to improve the navigation of the Opemican and Ottertail Rivers, and to construct and maintain dams, slides and booms, etc. The provisional directors are:—Hon. W. C. Edwards, J. A. Cameron, of Rockland, Ont.; H. K.

Egan, R. L. Blackburn, R. G. C. Edwards, of Ottawa, and H. Robinson, of Hawkesbury, Ont.

The G.T.R. purchased the car ferry Grand Haven, the property of the Grand Trunk Car Ferry Line. The line operated between Milwaukee, Wis., and Grand Haven, Mich., and interest on its bonds was in arrear, hence the auction sale of the steamer Nov. 7. The ferry has been purchased by the G.T.R. for its subsidiary company the Grand Trunk, Milwaukee Ferry Co., and will run on a regular schedule between Grand Haven and Milwaukee.

The Orchard Point Co. has been incorporated under the Ontario Companies' Act, with a capital of \$50,000 and offices at Orillia, Ont., to carry on a general hotel and summer resort business, and in connection therewith to own and operate steamers, yachts and boats. R. O. Smith, N. S. Tarr, W. Thomson, W. C. Gilchrist, C. H. Hale, of Orillia, are provisional directors. We are advised that the company does not at present intend to operate steamers.

An Owen Sound press report states that the Canadian Lake and Ocean Navigation Co. proposes to reconstruct the upper works of its four turret steamers so as to make them more suitable for the general freight business. We were officially advised Nov. 20, that this is "news" to the company. The company has had under consideration the advisability of taking its other steamers, Scottish Hero and Turret Bell, to the upper lakes, but as it will entail considerable expense in cutting them to take them through the canals it has not been considered seriously enough to warrant anything definite being said.

The St. Lawrence and Chicago Navigation Co.'s str. Rosedale reached Owen Sound, Ont., Nov. 4, from Port Arthur, which port she left Oct. 31. During a heavy storm she was thrown on her beam ends, and the cargo shifted, holding her in that position. The steamer's head was put to the sea, and the entire crew set to work to reshift the cargo. After 24 hours' work the list was reduced 2 ft., and the storm abating the Rosedale was enabled to make Sault Ste Marie, where 50 tons of coal were put into the port bunkers, bringing her on a fairly level keel. The upper works were considerably damaged during the storm.

The Muskoka Lakes Navigation and Hotel Co. has placed an order in Toronto for a steel twin-screw steamer, having a length of 152 ft.; a breadth of 30 ft., and a depth of 6 ft. 6 in. She will be equipped with triple expansion engines of the most improved type, having cylinders of 10 in., 16 in., and 26 in. diameter, capable of giving a guaranteed average speed of 16 miles an hour. The steamer will be fitted with all modern equipments, including steam steering gear, electric light, and septic tanks; and will be handsomely furnished. She will have dining accommodation for 90 persons at one time, and will be licensed to carry about 1,000 passengers. The hull will be built in sections in Toronto, and shipped to Gravenhurst, where the steamer will be finished. She is expected to be ready for the opening of the season about June 15, 1906.

There was launched from the shipyard of the Polson Iron Works, Toronto, Oct. 31, a new 24 in. hydraulic suction dredge for the Dominion Government. An attempt was made to launch the dredge, Oct. 30, but she stuck on the ways, and did not get clear until the following day. The dredge has been named Northumberland. Her general dimensions are: length, 147 ft.; breadth, 44 ft.; depth, 9 ft. at side; draft, 5 ft.; and she is capable of dredging in 40 ft. of water. The suction pipe, discharge pipe and booms are all of steel. The cutter head is a large steel casting, driven by independent engines at the head of the suction pipe. The dredged



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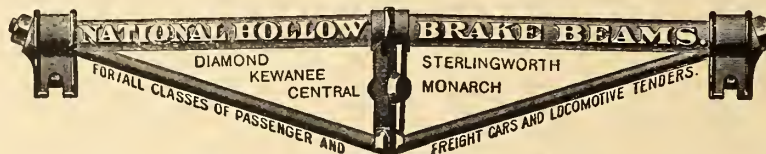
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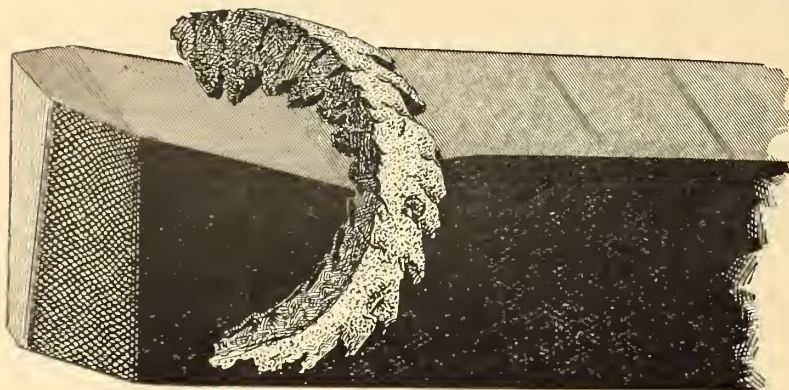
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Locomotive
Tires,
Car Wheel,
Shafting,
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1/2-inch cut,
1/4-inch feed.

Speed 20 to 40
feet per minute.

Tools hardened
by heating
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To New York, Philadelphia, Atlantic City,
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3 inches to 60 inches diameter

FLEXIBLE AND FLANGE PIPE AND SPECIAL CASTINGS
FOR WATER, GAS, CULVERT AND SEWER
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The Northern Electric and Manufacturing Co., Limited

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Contractors for and Dealers in

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Experimental and Model Work,
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Patterns, Gear-Cutting, Special-
ties, Repairs, Etc.

ESTIMATES PROMPTLY FURNISHED.

material will be conveyed by triple cylindrical pontoons (the two outer cylinders acting as floats) from the point of discharge at the hull to the dump.

The Toronto Ferry Co. has placed an order with the Polson Iron Works, Toronto, for a steel ferry steamer to have the following general dimensions:—length, 150 ft.; beam, moulded, 30 ft.; beam, over guards, 45 ft.; depth at side, 8 ft. 4 in.; draft, loaded, 4 ft. 6 in. The machinery will consist of one set of inclined, compound, paddle wheel engines, with cylinders 17 and 24 ins. diameter, by 48 in. stroke, and one Scotch marine boiler, 10 ft. 6 in. diameter by 11 ft. 6 in. long, built for a working pressure of 150 lbs. It is estimated that a speed of 10 miles an hour will be maintained. The auxiliary machinery will consist of an independent air pump and condenser, electric light plant, and necessary boiler, feed and bilge pumps, and steam steering gear. The vessel is designed as a double-ender, having a rudder at each end. The general appearance of the ends is something like the point of a large dessert spoon, with only sufficient modification to form a proper connection of the stern post to the hull. A very large area of loadwater line has been designed, giving the vessel plenty of stability and carrying power. In outward appearance she will rather resemble the Mayflower and Primrose, but will be 10 ft. longer, 2 ft. more beam over hull, and 12 inches deeper. She will have three decks, with the wheelhouses on the shade deck. A special feature in the new design will be that the windows in the main deck will be kept low, so that passengers sitting can easily see out. The seats are to be arranged longitudinally with promenades between the outside rows facing outboard. The interior finish is to be a studied effect of simple design, finished bright. Sleeping accommodation is to be provided for captain, mate and engineer. Drop gangways are to be furnished, one at each end and two at each side. Life saving and fire equipment will be furnished sufficient to enable the boat to receive a special certificate from the Dominion Government. It is expected that the steamer will be given her trial trip about May 15, 1906.

Manitoba and the Northwest Territories.

Lake Manitoba was entirely frozen over Nov. 2, the earliest date on record. Two steamers were caught in the ice, and it is feared they will be total wrecks by the spring.

The Department of Marine has decided to build a steamer for the use of its officers on Lake Winnipeg. The hull will be built at Selkirk, Man., during the winter. The total cost of the steamer will be \$10,000.

Several of the Lake Winnipeg fleet were caught in the early freeze up, Nov. 1. Seven steamers were reported frozen in at Netley, the City of Selkirk at West Selkirk, and the Rocket and Wolverine out in the lake.

The str. Neptune, which was sent to Hudson Bay to replace the Arctic, returned to St. John's, Nfld., after making the round of the posts to be supplied. She entered Hudson Bay, Oct. 3, and struck on rocks twice during the trip.

The Dominion Government str. Arctic, which has returned to Quebec from Hudson Bay, has been surveyed, and will have her engines and boilers overhauled before she returns in the spring. It is proposed to put the engines into shape to make from 8 to 10 miles an hour.

J. R. Ray, Inspector General of Surveys, Ottawa, started recently from Edmonton, Alta., to inspect the Saskatchewan River, with a view of reporting on its adaptability for navigation, and the improvements required to make it safe. After about 11 days' work and being several times frozen in, the work

was abandoned until the spring, the party having reached Moose, Alta.

Navigation on the Peace River has closed for the season, and Capt. J. M. McLeod of the Hudson's Bay Co.'s str. Peace River, has been spending some time at Winnipeg, and other points. He says the steamer he commands serves a country fully 1,000 miles in length. Last season the company's steamers carried about 100 passengers, including missionaries, geologists, inspectors, traders, etc., into the Peace River country.

B.C. and Pacific Coast Shipping.

J. Knarston has been appointed harbor master for Nanaimo and Departure Bay, B.C., succeeding H. Cooper, resigned.

The B.C. Government is advertising for bids for a steam ferry service between Kelowna and McLennan's Landing, Okanagan Lake.

The tug St. Clair has been seized at Vancouver for towing B.C. logs on which the timber dues had not been paid to U.S. ports. Other tugs are reported to be engaged in this traffic.

The str. Pheasant stranded on her last trip between Hazelton and Port Essington, and had to return to the latter port for repairs. She will be laid up until the opening of navigation of 1906.

The name of the str. Danube, no. 62,279, registered at Victoria, B.C., has been changed by order-in-council to Salvor. The steamer was recently sold by the C.P.R. to the B.C. Salvage Co., Esquimalt.

Navigation on the Yukon River closed Oct. 23, and officials of the White Pass and Yukon route report that for the first time when the last steamer of the season left, there was no freight for Dawson remaining in the warehouses at Whitehorse.

The International Navigation and Trading Co.'s officers and directors for the current year are:—President, H. A. Kennedy; Vice-President, A. H. MacNeill; other directors; P. H. Walsh; Secretary and Treasurer, W. H. Fortier; Manager, R. C. Morgan.

The Mexican Government has given notice to the Collector of Customs at Victoria, B.C., to cancel the register of the schooner Carmencita, which was seized in connection with some illegal movements. The schooner sailed from San Francisco under a temporary registry to go to Mexico, but instead went seal hunting and turned up at Victoria.

A company is in process of formation with the title of the Hartley Bay Lumber, Trading, Towing and Fishing Co., at Hartley Bay B.C. The proposed capitalization is \$30,000, and the promoters are Capt. E. McCroskerie, for a number of years master of one of the C.P.R. Pacific coast steamers, and J. J. Martin, Victoria, B.C. The company intends to carry on lumbering and allied industries, fishing and towing.

J. F. Fraser, Commissioner of Lights, is expected to return to Ottawa early in Dec., from a trip of inspection to British Columbia. Col. Anderson, Chief Engineer of the Department of Marine, and Capt. Gaudin, the Department's agent at Victoria, completed their inspection at the end of Oct. The Department has completed the erection of a new lighthouse at Graeme Point, Malcolm Island, and will erect a wooden lighthouse tower on Denman Island, Baynes Sound. The object of Mr. Fraser's visit is to decide which other aids are necessary, and what improvements in the present lights should be made.

The White Pass and Yukon Ry. Co. on its river division during the year ended Dec. 31, 1904, operated the following steamers:—White Horse, Dawson, Selkirk, Yukoner, Canadian, Columbian, Casca, Victorian, Mary

Grafi, Bailey, Zealandian, Anglian, Clossett, Thistle, Australian, Bonanza King, Gleaner, Scotia, La France, and Tasmanian. This latter steamer was sold during the year. It has as barges: Klondike, Hootalinqua, Taku, La Barge, Atlin, Caribou, Sifton, and Sybil, the two latter being dismantled steamers. A summary of the operations of the division appears in the general report of the company.

The investigation ordered by the Department of Marine into the charges made by Capt. Johnson, of the Hudson's Bay Co.'s str. Mount Royal, against Capt. Bonsar, of the Hazelton, was opened at Victoria, B.C., Oct. 23, before Capt. Gaudin. The finding of the court, which was issued Nov. 3, follows: "(1) The Mount Royal, being the overtaking vessel, was in default of non-observance of articles 19 and 24 of the regulations preventing collisions at sea. (2) The Hazelton, after getting under way from the woodpile on the south side, unnecessarily crowded the Mount Royal to the north bank, and I can find no reason for this. When the vessels were clear the Hazelton was in default under article 19 for not keeping clear of the other vessel. (3) Considering the dangerous part of the river in which the vessels were navigating, and in the interval between the first and second impact, I think the masters of both vessels are to blame for allowing the vessels to close in within a distance of forty feet. (4) The captain of the Mount Royal committed a great dereliction of duty by leaving the helm of the vessel and the signals of the engineer unattended during the time of the impact." Captain Johnson proposes to appeal against the finding so far as it affects his conduct.

Among the Express Companies.

The Canadian Ex. Co. has opened offices at Cape Traverse, P.E.I.; Westchester, N.S.; Harcourt, N.B.; Contrecoeur, Que.

The Dominion Ex. Co. withdrew the season of navigation rates from Quebec city to Lower St. Lawrence River points, and to Georgian Bay local ports, from Nov. 14.

The Canadian Ex. Co.'s offices in the Muskoka Lakes district were closed for the winter season, Nov. 1, with the exception of Port Carling, which will be reached by Falkenberg, Ont.

The Newfoundland Ex. Co. issues money orders payable in Newfoundland, Canada, the United States and Europe. The company has four branch offices in St. John's, Nfld.

LeB. Coleman, heretofore route agent Canadian Ex. Co., St. John, N.B., has been appointed city agent at Halifax, N.S., succeeding R. B. Thomas, who resigned in Oct., to enter the Methodist ministry.

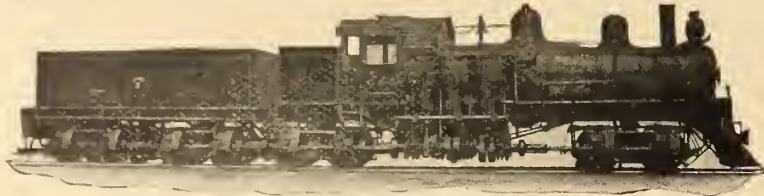
The Maritime Ex. Co., has offices at St. John, N.B.; Digby, Annapolis, Lunenburg, Halifax, Yarmouth, N.S., and intermediate points on the Dominion Atlantic Ry., and the Halifax and South Western Ry. It has also an office at Boston, Mass.

The American Ex. Co. has ceased to operate over the lines of the Pere Marquette Rd., being replaced by the United States Ex. Co. The American Ex. Co. now operates over the Michigan Central Rd., Pontiac, Oxford and Northern Rd., Manistee and North-eastern Rd., Detroit and Mackinack Rd., and the G.T.R. in the U.S.

The Dominion and Canadian Ex. companies have been giving a joint service over the Lake Erie and Detroit River Ry., the Canadian line of the Pere Marquette Rd., the business on the trains being handled by the baggagemen. The Canadian Ex. Co. withdrew from the arrangement Nov. 1, but the Dominion Ex. Co. is still operating.

FOR UP-GRADE HAULING.

The best Railway Locomotive for work on divisions where there are heavy grades or sharp curves is the
HEAVY SHAY GEARED LOCOMOTIVE



This is the Locomotive that works best under test. Judges at the Louisiana Purchase Exposition awarded it the **GOLD MEDAL** because it is the best in its class.

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MONTREAL STEEL WORKS

AGENTS FOR CANADA

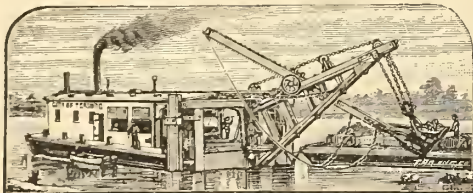
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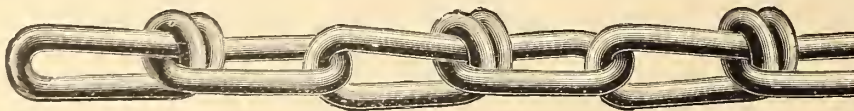


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If you are interested in chains, examine carefully the perfect mechanical construction of the Brown's. It is the most perfect chain made. We make it in 13 sizes.

Correspondence Solicited. We send cuts with table of breaking strain. Samples, etc., on request.

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FOR POWER HOUSES, WAREHOUSES, COAL YARDS AND DOCKS

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ENGINEERS AND MANUFACTURERS

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This season will mark the inauguration of the

HAVANA LIMITED

Between

CHICAGO, ST. LOUIS and MOBILE

In connection with the

S.S. "PRINCE GEORGE"

Between

MOBILE AND HAVANA.

The *Havana Limited* will be a *train de luxe*, operated on a fast schedule over the *Chicago & Alton* and *Mobile & Ohio* Railroads, making immediate connection at *Mobile* with the superb nineteen knot, electric lighted, steel, twin-screw S.S. "*Prince George*," which is constructed on the lines of the ocean greyhounds *Campania* and *Lucania*, with accommodations for two hundred first cabin passengers and sixty second cabin. The trip from Chicago to Havana will consume sixty hours.

For full information, write Jno. M. Beall, General Passenger Agent, *Mobile & Ohio Railroad*, St. Louis.

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BEST WAY TO NEW YORK FROM BUFFALO

FIVE TRAINS DAILY

ALL COMFORTS

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LONG DISTANCE TELEPHONE SERVICE

HAS NO EQUAL FOR THE FACILITY IT AFFORDS IN BUSINESS LIFE.

Full particulars as to rates and service at the nearest office of

THE
BELL TELEPHONE CO. OF CANADA

The Dominion Ex. Co. has opened offices at Wycliffe (formerly Bayard), B.C.; Oberon (formerly McKenzie), Man.; Oxford Jct., N.S.; Bushnell (formerly Bush Lake); Cassidy (formerly Mud Lake); Grey (formerly Big Dan); Liskeard (formerly New Liskeard); North River, Otter (formerly Ottertail); Riddle (formerly Riddle Creek); Roxborough (formerly Twin Lake); Trout Mill (formerly Trout Lake); Vineland, Ont.

Owing to the difficulty experienced in making deliveries and securing settlement of c.o.d. shipments destined to points on Georgian Bay and Muskoka Lakes at which there are no Canadian Ex. Co.'s offices, its agents have been instructed to refuse such c.o.d. parcels. All matters destined for points on the Muskoka Lakes where the company does not have an office must be prepaid and way-billed to Muskoka Wharf unless specially instructed otherwise.

The American Ex. Co.'s travellers' cheques may be obtained in connection with the money order and foreign cheque department of the Dominion Ex. Co.'s offices at Toronto, North Bay, St. Thomas, Brantford, Owen Sound, Port Arthur, Sault Ste. Marie, Hamilton, Woodstock, Chatham, Brockville, Kenora, Ottawa, Peterboro', London, Windsor, St. Catharines, Ont.; Fredericton, Woodstock, St. John, Moncton, N.B.; Quebec, Montreal, Sherbrooke, Que.; Portage la Prairie, Winnipeg, Brandon, Man.; Vancouver, Victoria, Nelson, B.C.; Halifax, N.S.; Calgary, Alta.

The Dominion Ex. Co. and the Western Ex. Co. have common points at North Portal, Sask; Portal, N.D.; and Sault Ste. Marie, Mich.; and as these companies are treated as one in the interchange of business, these offices are exclusive to both companies. An exception is noted from common points in the U.S., where the Dominion or Western Ex. Co.'s are not represented, through way-bills at one graduate may be made to Sault Ste. Marie, Mich. The Western Ex. Co. will also receive through waybills made by other companies from Detroit, Mich., to Sault Ste. Marie, Mich., when necessary to save time.

Telegraph and Cable Matters.

The section of the U.S. cable between Seattle, Wash., and Sitka, Alaska, is reported to be practically worthless.

The DeForest Wireless Telegraph station at Ottawa has been completed, and regular communication is reported to be maintained with Montreal.

The Dominion Government cable str. Tyrian has had her boilers repaired at Halifax, N.S., after the blowing out of a plug, which caused the death of two men Oct. 31.

W. B. Powell, who has retired from the position of local manager G.N.W. Telegraph Co., Montreal, after 37 years' service, was presented with a diamond pin by the employees.

P. D. Hamel, Secretary-Treasurer Division 7 Order of Railway Telegraphers, Montreal, was arrested there Nov. 2, on a charge of embezzling about \$8,000, the property of the order.

The Anglo-American Telegraph Co. has brought an action against the Reid Newfoundland Co. and others to recover \$314,000 damages. The action will be tried at St. John's, Nfld.

The Marconi Wireless Telegraph station at Sable Island, N.S., established by the Dominion Government, is reported to be working efficiently, and that from 80 to 100 messages a day are received.

F. C. Carney, Manager G.N.W. Telegraph Co., Ottawa, was presented with a gold locket by the employees, Oct. 25, on the occasion of

his appointment to the managership of the company's Montreal office.

Lieut.-Col. H.M. Pellatt, Toronto, has been elected a director of the Dominion Telegraph Co., succeeding the late T. R. Wood. Col. Pellatt was included in the list of the King's birthday honors, being made a knight bachelor.

W. J. Duckworth, heretofore Inspector G.N.W. Telegraph Co., has been appointed Superintendent of Maintenance and Construction, succeeding A. B. Smith, resigned, to become Manager of the G.T. Pacific Ry.'s telegraph department.

A. B. Smith was presented with a silver tea service by the employees of the G.N.W. Telegraph Co. at Toronto and other points, on giving up his position as Superintendent of Maintenance and Construction to take over the duties of Manager of the G.T. Pacific Ry. Telegraph Department.

F. C. Carney, heretofore local manager G.N.W. Telegraph Co., Ottawa, has been appointed local manager at Montreal, succeeding W. B. Powell, retired after 37 years' service. He is succeeded at Ottawa by J. G. Davies, heretofore in the service of the Western Union Telegraph Co., Brooklyn, N.Y.

The G.T.R., by its purchase of the Canada Atlantic Ry., has obtained control of a telegraph system from Ottawa to Parry Sound, Ont., and from Ottawa to the International boundary. This telegraph line has connections with the C.P.R. Telegraph lines, and with the Postal Telegraph Co.'s lines in the U.S.

The Department of Marine is having a mast erected at Cape Bear, P.E.I., at a point about halfway between Georgetown, P.E.I., and Pictou, N.S., to send and receive wireless telegraph messages on the Marconi system, from the winter steamers, while crossing the strait. The tower is not to be used for commercial messages.

The C.P.R. Telegraph Department is stringing a wire between Calgary and Wetaskiwin, and along the new branch lines of the C.P.R., eastwards from Wetaskiwin and Lacombe, Alta.; and also on the extension of the McGregor branch in Manitoba. Altogether about 2,000 miles of new wire, half of which is copper wire, and 100 miles of pole line have been added to its system during the current year. Other extensions are in progress on various parts of the system.

With respect to press reports that the Marconi Wireless Telegraph Co.'s station at Glace Bay, N.S., was practically useless for the purpose of receiving messages across the Atlantic Ocean, and that a new station for receiving messages only would be built at Lorne Head near Louisbourg, N.S., we have been officially advised that there is no foundation in fact for the statements. The station at Glace Bay has lately been completed, and answers the purposes for which it was built to the entire satisfaction of the company. The station can transmit and receive messages to and from England with equal facility, and any reports to the effect that it is intended to change the station are said to be ridiculous.

J. G. Davies, who has been appointed Manager of the G.N.W. Telegraph office at Ottawa, was born at Hot Springs, Ark., June 26, 1877, and entered telegraph service in 1889, his record being: June, 1889 to 1897, check-boy, clerk, and operator in the office of the Western Union Telegraph Co., Helena, Mont.; 1897 to 1900 successively with the Great Northern Ry., at Great Falls and Havre, Mont., and with the Postal Telegraph Co. at Great Falls, Mont., returning to the Western Union Co. at Helena; May, 1900, to Nov., 1902, Manager Western Union Telegraph Co., Anaconda, Mont.; Nov., 1902, to Nov., 1904, Manager Fulton Market, New York

City office, same company; Nov., 1904, to Oct., 1905, Manager of the fish, sugar, coffee, and steel districts in the territory lying from the Brooklyn Bridge south to Old Slip, and from William st. to East River, New York, same company.

The annual report of the Western Union Telegraph Co. contains the following figures with regard to income account:—

	1905	1904
Gross revenue.....	\$29,033,635	\$29,249,390
Operating expenses.....	21,845,570	21,361,915
Net revenue.....	\$ 7,188,65	\$ 7,887,475
Interest on bonds.....	1,227,200	1,157,700
Net profit.....	\$5,960,865	\$6,729,775
Dividends.....	4,868,084	4,868,071
Surplus.....	\$1,092,781	\$ 1,861,704
Previous surplus.....	14,881,429	13,019,725
Total surplus.....	\$15,974,210	\$14,881,429

The surplus, after deduction of operating expenses and bond interest, was \$5,960,865 for the year, or 6.12% on the \$97,370,000 capital stock. The retiring directors were re-elected, and the officers and executive committee were also re-elected.

General Telephone Matters.

A telephone line is being strung between North Bay and Sturgeon Falls, Ont.

The Bell Telephone Co. has extended its lines from Thornbury to Kimberley, Ont.

The Bell Telephone Co. has opened toll offices at St. Agapit, Que., and at Minesing, Ont.

The Bell Telephone Co. has completed a long distance line from Sault Ste. Marie to Blind River, Ont.

The Bell Telephone Co. is considering a proposition to inaugurate an all night service in Wetaskiwin, Alta.

The Telephone Co. of Prince Edward Island has a construction gang at work in Summerside completing its lines there.

The Dominion Coal Co. has an independent telephone service at Glace Bay, N.S., connecting its stores, collieries, offices, machine shops, etc.

The Bell Telephone Co. has completed a line serving Sheddon, Fingal, Southwold, Iona and Lawrence, Ont., and giving connection with St. Thomas, Ont.

The Bell Telephone Co. has been summoned to the Recorder's Court at the instance of the Montreal City Council for a breach of a by-law levying a fee of \$5 on each unlicensed slot telephone in operation in the city.

The North Vancouver, B.C., City Council desires to bind the B.C. Telephone Co. to a time limit for the installation of its service, but the company states that the manufacturers are so rushed with orders that it is not easy to get them filled.

The Central Telephone Co. of New Brunswick has absorbed the Richibucto-Rexton Telephone Co. The construction to connect the latter with the Central Co.'s lines at Campbellton is going on. Negotiations are in progress with a view of making a connection with the lines along the St. John River counties.

The Eastern Telephone Co. is making a number of improvements on its lines in Glace Bay, N.S., and district. The line between Sydney and Louisburg has been overhauled; a new 50-line cable has been strung from the central office to Bridgeport road, and a branch cable strung from Main St. to the new post office. The E. T. Co. has over 100 subscribers in Glace Bay and vicinity.

Residents on the North shore of Kootenay Lake, B.C., are negotiating with the B.C. Telephone Co., with a view of having an improved telephone service. G. C. Hodge in

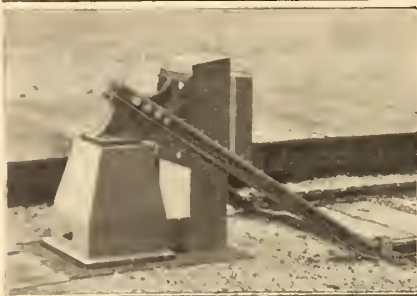
St. Lawrence Floating & Wrecking Co.

CAPITAL - \$200,000

OFFICERS—J. W. HARRIS, President; H. A. RICHARDSON, Vice-President
JOSEPH DURAND, Secretary-Treasurer.

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All forms of deep sea and river wrecking contracted for on "No cure no pay" basis. This company is in possession of the most perfect wrecking and salvaging equipment in the Dominion of Canada. Representatives wanted in every sea or river port in the Dominion.



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SIMPLE, STRONG AND LASTING.
ADAPTED TO ALL POSITIONS ON THE
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RAILWAY AND STEAMSHIP SUPPLIES
NEW AND SECOND-HAND LOCOMOTIVES
CARS, STEAM SHOVELS AND GENERAL CONTRACTORS' PLANT

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New and Second-Hand **RAILS** for Railways and Tramways

CONTRACTORS' SUPPLIES, etc.

"NOVO" Air-Hardening Steel

is unsurpassed for all descriptions of tools. A full stock of

BARS, TWIST DRILLS and CUTTER BLANKS
kept constantly on hand.

MILLING CUTTERS and REAMERS made to order.

N.B.—All Tool holder sizes of "Novo" Steel from $\frac{1}{4}$ in. to $\frac{1}{2}$ in. square are made Glass Hard, needing no hardening and should be ground only on a wet stone or wheel.

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First-Class Tugs for Wrecking, Raft Towing, etc. Steam Pumps, Divers, Jacks, Hawsers and Lighters.

Special Announcement Hotel and Railroad Employees

An invitation is extended to any Hotel Proprietor, manager or clerk outside of New York, or Railroad official whose name appears in the Pocket List of Officials, or any member of the International Association of Coupon Railway Ticket Agents, to accept the hospitality of our hotel for three days WITHOUT CHARGE. This offer is made in order to establish a headquarters for Railroad officials and Hotel men.

USUAL RATES—Room and bath \$3 per day and up without meals. Room and bath \$30 per week and up with meals for two.

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J. C. LAWRENCE - - - Proprietor

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Phones, Main
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Richard Southam
Manager

STEEL, PEECH & TOZER, LIMITED,

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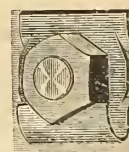
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SOLE AGENTS:

James Hutton & Co., Montreal.

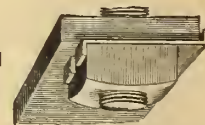
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J. W. BENSON, Sec'y-Treas.

stating the position of the company said: "It is decidedly averse to the policy of connection with branch lines over which we have not full control. We could not be responsible for the lines being kept in repair, and we should be hearing constant complaints from our city subscribers if connections asked for could not be given. If we are to be held responsible we must take full control."

The Toronto City Council has approved a proposal of the Board of Control to apply for special legislation to secure the desired assessment of the telephone and telegraph companies' property in the city. In his report to the Board the Assessment Commissioner said:—"There is no provision for the assessment of plant of these companies situate on the public places in the municipality; in fact, in sec. 14, sub-sec. 8, all the plant, appliances and machinery of telephone and telegraph companies are specifically exempted. Last year the assessment on the plant of the Bell Telephone Co., including switchboards, was \$675,050, while under the present act the assessment on gross receipts and business assessment was only \$422,237, a loss at once of \$252,813, or at 19 mills on the dollar a loss in taxes of \$4,803. This is a serious loss to the city, but in addition to this there is this fact to be considered: the way the act now stands, there can be no assessment made in respect of the plant on the streets, and, therefore, the company is able to construct miles of conduits and erect poles and string wires, which, after installation, may not earn any revenue, and thus the municipality receives no taxes for valuable assets belonging to the company, although occupying our streets and other public places. Personally, I am strongly in favor of an application to the Legislature for a change in the method of the assessment of the Bell Telephone Co., with a view of placing that company at least on a similar basis to other franchise companies, viz., gas, electric light and street railway."

Quebec Telephone Systems.

There are located in the Province of Quebec a larger number of telephone companies than in any other province of the Dominion. A list recently compiled for the House of Commons Telephone Committee showed that—exclusive of the Bell Telephone Co., which though having its head offices in Montreal, carries on business under its general charter in other parts of Canada—there were 28 separate and distinct telephone companies carrying on business in Quebec. A list of these is appended:—

Jos. Archambault, L'Epiphanie.
Beauce County Telephone Co., St. Joseph de Beauce.
Beauce Telephone Co., St. Francois.
Belleville Telephone Co., Levis.
Canadian Telephone Co., Sawyerville.
P. Deshaie, Doucet's Landing.
Eastern Townships Telephone Co., Sherbrooke.
Electric Light and Telephone Co., Solomon A. St. Pierre.
Fournier Villermar, St. Valere de Bulstrode, Drummond, Arthabaska.
F. Gauthier & Co., Drummondville.
Joliet Telephone Co., Joliet.
Kamarsouska Telephone Co., Fraserville.
Laurentides Telephone Co., Laurentides.
H. Lemieux & Sons, Murray Bay.
L'Epiphanie Local Telephone Co., L'Epiphanie.
Megantic Telephone Co., St. Julie de Somerset.
Merchants' Telephone Co., Montreal.
Metis Telephone Co., Little Metis.
People's Telephone Co., Sherbrooke.
T. B. Rider, Pitch Bay.
Roberval Telephone Co., Roberval.
St. Laurent Telephone Co., St. Francis du Lac.
St. Lawrence Telephone Co., St. Francis du Lac.
St. Maurice Telephone Co., Shawengnan.
St. Maurice Telephone Co., Three Rivers.
St. Winceslas Parish Telephone Co., St. Winceslas.
St. Zephirin Telephone Co., St. Zephirin.

The Merchants Telephone Co. has been doing business in Montreal since 1895. It has 1,546 subscribers and of these 190 are in private houses. The rates charged are \$25 and \$35 for residences, and \$20, \$30 and \$35

for business places. The telephone outfit put into the subscriber's premises costs about \$13.46, then there is the wiring and maintenance. The company has about 3,000 miles of double wire, that is 1,500 miles of lines. Some of this was strung on the company's own pole line, and the rest on the pole line of the Montreal Light, Heat and Power Co., under an agreement. The company has not been able to secure the placing of its instruments in the offices of the C.P.R., the G.T.R., the Richelieu and Ontario Navigation Co., or the Shedden Forwarding Co., those companies having exclusive agreements with the Bell Telephone Co., but it has its instruments in the city council offices. At present time the M.T. Co. is carrying on its business exclusively within the city of Montreal, Ste. Cunegonde, St. Henri and Maisonneuve. It has no connection with the Bell Telephone Co., and cannot secure a connection with that company's long distance lines. The company could construct long distance lines for itself, but according to a statement of an officer, has as much as it can do to attend to its local business in Montreal. The company has not paid any dividends. The officers of the company, which does not publish an annual report and statement of accounts, are:—President, A. G. N. Culbertson; Vice-President, A. Jones; Secretary-Treasurer, J. Moisan; other directors: A. S. Delisle, A. S. Hamelin.

PURCHASING AGENTS' GUIDE.

(Continued from third page of cover.)

- Engineers, Consulting**
H. W. Breithaupt.....Berlin, Ont.
- Engineers' Supplies**
Canadian Fairbanks Co.....Montreal.
The Canadian Rubber Co. of Montreal.
Williams & Wilson.....Montreal.
- Engines, Automatic**
Robb Engineering Co.....Amherst, N.S.
- Engines, Corliss**
Robb Engineering Co.....Amherst, N.S.
- Engines, Gasoline**
Goold, Shapley & Muir Co.....Brantford, Ont.
Ontario Wind Engine and Pump Co.....Toronto.
- Engines, Holsting**
M. Beatty & Sons.....Welland, Ont.
- Engines, Stationary and Marine**
Canada Foundry Co.....Toronto.
H. W. Petrie.....Toronto.
Polson Iron Works.....Toronto.
Robb Engineering Co.....Amherst, N.S.
- Engines, Steam**
Williams & Wilson.....Montreal.
- Engraving**
Rolph & Clark (Ltd.).....Toronto.
- Engraving (Copper and Steelplate)**
Rolph & Clark (Ltd.).....Toronto.
- Express Office Signs**
Acton Burrows Co.....Toronto.
- Feedwater Heaters**
Canadian Fairbanks Co.....Montreal.
H. W. Petrie.....Toronto.
Robb Engineering Co.....Amherst, N.S.
Williams & Wilson.....Montreal.
- Fencing**
Canada Foundry Co.....Toronto.
Canadian Steel and Wire Co.....Hamilton, Ont.
McGregor, Banwell Fence Co.....Walkerville, Ont.
Owen Sound Wire Fence Co.....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.
- Fire Brick**
W. H. C. Mussen & Co.....Montreal.
- Fire Escapes**
The G. B. Meadows Wire, etc., Co.....Toronto.
- Fire Insurance**
Dale & Co.....Montreal.
- Fireproof Building Material**
A. B. Ormsby (Ltd.).....Toronto.
- Flags**
The Hudson's Bay Co.....
- Flour**
The Hudson's Bay Co.....
- Forgings**
Canada Car Co.....Montreal.
Crossen Car Mfg. Co.....Cobourg, Ont.
General Railway Signal Co.....Buffalo, N.Y.
Standard Steel Works.....Philadelphia, Pa.
- Gasoline Engines**
Canadian Fairbanks Co.....Montreal.
- Gas Pipe (Cast Iron)**
Gartshore-Thompson Pipe & F'dry Co., Hamilton.
- Gates**
Canada Foundry Co.....Toronto.
McGregor, Banwell Fence Co.....Walkerville, Ont.
Owen Sound Wire Fence Co.....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.
- Gears (Heavy)**
W. Kennedy & Sons (Ltd.).....Owen Sound Ont.
- Generators**
Charles F. Johnson.....Buffalo, N.Y.
- Grain Elevators**
John S. Metcalfe Co.....Chicago, Ill.
- Groceries**
The Hudson's Bay Company.....
- Handcars**
Crossen Car Mfg. Co.....Cobourg, Ont.
W. H. C. Mussen & Co.....Montreal.
Toronto, Pressed Steel Co.....Toronto.
- Hardware**
The Hudson's Bay Company.....
- Headlights**
N. L. Piper Railway Supply Co.....Toronto
- Headlinings**
Crossen Car Mfg. Co.....Cobourg, Ont.
- Hoppers, Car, Wet or Dry**
Dunier Co.....Chicago, Ill.
- Hose, Air Brake and Steam**
The Canadian Rubber Co. of Montreal.
- Hose, Fire**
The Canadian Rubber Co. of Montreal
- Hose, Suction**
The Canadian Rubber Co. of Montreal.
- Hydrants**
Kerr Eng ne Co.....Walkerville, Ont
- Illustrations**
Acton Burrows Co.....Toronto.
- Inspections**
R. W. Hunt & Co.....Montreal.
H. Jarvis & Co.....Chicago, Ill.
- Instruments, Surveying and Engineering**
Eugene Dietzen Co.....New York.
James Foster.....Toronto.
- Insurance (Fire and Marine)**
Dale & Co.....Montreal.
- Interlocking and Signalling**
General Railway Signal Co.....Buffalo, N.Y.
- Interlocking Signals**
Montreal Steel Works.....Montreal.
- Iron Fencing**
The G. B. Meadows Wire, etc., Co.....Toronto.
- Iron and Steel Castings**
American Brake Shoe & F'dry Co., Mahwah, N.J.
- Iron, Pig**
John McDougall & Co.....Montreal.
- Iron Signs**
Acton Burrows Co.....Toronto.
- Japans**
McCaskill, Dougall & Co.....Montreal.
- Journal Bearings**
Canada Foundry Co.....Toronto.
Canadian Bronze Co.....Montreal.
Crossen Car Mfg. Co.....Cobourg, Ont.
Kerr Engine Co.....Walkerville, Ont.
Jas. W. Pyke & Co.....Montreal.
St. Thomas Brass Co.....St. Thomas, Ont.
- Journal Boxes**
N. J. Holden & Co.....Montreal.
- Lager Beer, &c.**
E. L. Drewry.....Winnipeg.
- Lamps, Incandescent**
Canadian Westinghouse Co.....Hamilton, Ont.
- Lamps and Lanterns**
The Hudson's Bay Company.....
N. L. Piper Railway Supply Co.....Toronto.
- Lathes**
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.
Williams & Wilson.....Montreal.
- Launches**
Polson Iron Works.....Toronto.
- Lights, Contractors' and Wrecking**
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
- Lithographing**
Rolph & Clark (Ltd.).....Toronto.
- Locomotive Driver Brake Shoe**
American Brake Shoe & F'dry Co., Mahwah, N.J.
- Locomotive Lagging and Covering**
Canadian Fairbanks Co.....Montreal.

(Continued on page 615.)

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PURCHASING AGENTS' GUIDE.

(Continued from page 614.)

Locomotives (Compressed Air)

Baldwin Locomotive Works.....Philadelphia, Pa.
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.

Locomotives (Electric)

Baldwin Locomotive Works.....Philadelphia, Pa.
Canada Foundry Co.....Toronto.
Locomotive and Machine Co. of Montreal.

Locomotives (Logging)

Canadian Locomotive Co.....Kingston, Ont.
Lima Locomotive and Machine Co.....Lima, Ohio.

Locomotives (Raek)

Baldwin Locomotive Works.....Philadelphia, Pa.
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.

Locomotives (Steam)

Baldwin Locomotive Works.....Philadelphia, Pa.
Canada Foundry Co.....Toronto.
Canadian Locomotive Co.....Kingston, Ont.
F. H. Hopkins & Co.....Montreal.
Charles F. Johnson.....Buffalo, N.Y.
The W. H. Kelson Co.....Montreal.
Lima Locomotive and Machine Co.....Lima, Ohio.
Locomotive and Machine Co. of Montreal.

Locomotive Stack Netting

The G. B. Meadows Wire, etc., Co.....Toronto.

Machine Tools

W. Abbott.....Montreal.
Canadian Fairbanks Co.....Montreal.
H. W. Petrie.....Toronto.
Williams & Wilson.....Montreal.

Machine Screws, Set Cap and Planer

John Morrow Machine Screw Co.....Ingersoll.

Machinery, Marine

Sheriffs Mfg. Co.....Milwaukee, Wis.

Machinery Repairs, Marine

Sheriffs Mfg. Co.....Milwaukee, Wis.

Manganese Steel Castings

Montreal Steel Works.....Montreal.

Manhole Frames and Covers

American Brake Shoe & F'dry Co...Mahwah, N.J.

Maps

Rolpb & Clark (Ltd.).....Toronto.

Marine Insurance

Dale & Co.....Montreal.

Mats and Matting

The Canadian Rubber Co. of Montreal.

Metal Studding

A. B. Ormsby (Ltd.).....Toronto.

Metal Windows

A. B. Ormsby (Ltd.).....Toronto.

Milepost Numbers

Acton Burrows Co.....Toronto.

Milling Cutters

W. Abbott.....Montreal.
Williams & Wilson.....Montreal.

Milling Machines

The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Mills, Boring and Turning

The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Mill Tools and Supplies

J. A. Dawson & Co.....Montreal.

Motors

Charles F. Johnson.....Buffalo, N.Y.

Nickel

The Orford Copper Co.....New York.

Nickel for Nickel Steel

The Orford Copper Co.....New York.

Numbers

Acton Burrows Co.....Toronto.

Nuts, Cold Pressed

John Morrow Machine Screw Co.....Ingersoll.

Nuts, Square and Hexagon

Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Oakum

The Hudson's Bay Company.....

Office Desks

Canadian Office & School Furniture Co., Preston, Ont.

Office Fittings

Canadian Office & School Furniture Co., Preston, Ont.

Office Railings

The G. B. Meadows Wire, etc., Co.....Toronto.

Office Signs

Acton Burrows Co.....Toronto.

Oils

Galena Signal Oil Co., Franklin, Pa., and Toronto.

Packing

The N. L. Piper Railway Supply Co.....Toronto.
Williams & Wilson.....Montreal.

Packing, High Pressure Sheet

The Canadian Rubber Co. of Montreal.

Packing, Plston

The Canadian Rubber Co. of Montreal.

Paints, Acid Proof and Anti-rust

American Asphaltum & Rubber Co...Chicago, Ill.

Paints, Asphaltum

American Asphaltum & Rubber Co...Chicago, Ill.

Paints, Bridge

American Asphaltum & Rubber Co...Chicago, Ill.

Paints, Locomotive Front end

American Asphaltum & Rubber Co...Chicago, Ill.

Paints, Mineral Rubber

American Asphaltum & Rubber Co...Chicago, Ill.

Paints, Structural Iron

American Asphaltum & Rubber Co...Chicago, Ill.

Pinch Bars

The N. L. Piper Railway Supply Co.....Toronto.

Pipe and Pipe Coverings

W. C. Baker.....New York.

Pipe Covering

Canadian Fairbanks Co.....Montreal.
Mica Boiler Covering Co.....Montreal.

Planers

The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Ploughs, Contractors'

W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Pneumatic Tools

N. J. Holden & Co.....Montreal.

Porter

E. L. Drewry.....Winnipeg

Portable Boilers

Bahcock & Wilcox (Ltd.).....Montreal.
Canada Foundry Co.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Printing

The Hunter, Rose Co.....Toronto.
The Mail Job Printing Company.....Toronto.

Propeller Wheels

W. Kennedy & Sons (Ltd.)....Owen Sound, Ont.
Sheriffs Manufacturing Co.....Milwaukee Wis.

Pumps

Canadian Fairbanks Co.....Montreal.
Canada Foundry Co.....Toronto.
Goold, Shapley & Muir Co.....Brantford, Ont.

Pumps (Centrifugal)

M. Beatty & Sons.....Welland, Ont.

Punching and Shearing Machines

The John Bertram Sons Co.....Dundas, Ont.

Rail Benders, Roller

Montreal Steel Works.....Montreal.

Rails (new)

Drummond, McCall & Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.

Rails (for relaying)

F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.
Charles F. Johnson.....Buffalo, N.Y.
T. A. Morrison & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.

Railway Interlocking

General Railway Signal Co.....Buffalo, N.Y.

Rail Joints

N. J. Holden & Co.....Montreal.

Railway Pile Drivers

F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Railway Signalling

General Railway Signal Co.....Buffalo, N.Y.

Railway Supplies

J. A. Dawson & Co.....Montreal.
Canadian Fairbanks Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
The W. H. Kelson Co.....Montreal.
The N. L. Piper Railway Supply Co.....Toronto.

Reamers

W. Abbott.....Montreal

Refrigerators

Geo. R. Prowse.....Montreal.

Rivets, Boiler, Bridge and Structural

Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Rolled Wheels

Standard Steel Works.....Philadelphia, Pa.

Rolls, Plate Bending

The John Bertram Sons Co.....Dundas, Ont.

Roofers

A. B. Ormsby (Ltd.).....Toronto.

Roof Trusses

Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.

Roofing Pitch

American Asphaltum & Rubber Co...Chicago, Ill.

Roofing, Ready

American Asphaltum & Rubber Co...Chicago, Ill.

Roofs, Car

American Asphaltum & Rubber Co...Chicago, Ill.

Rope

The Hudson's Bay Co.....

Rotary Snow Ploughs

Crossen Car Mfg. Co.....Cobourg, Ont.

Rubber Tiling, Interlocking

The Canadian Rubber Co. of Montreal.

Saw Steel

Montreal Steel Works.....Montreal.

Serapers (Wheel and Drag)

F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Screws, Coach and Lag

Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Semaphore Arms

Acton Burrows Co.....Toronto.

Semaphores

The N. L. Piper Railway Supply Co.....Toronto.

Sewer Pipe (Cast Iron)

Gartshore-Thompson Pipe & F'dry Co...Hamilton.

Shaking Grates

Bahcock & Wilcox (Ltd.).....Montreal.

Shaping Machines

The John Bertram Sons Co.....Dundas, Ont.

Ship Lamps

The N. L. Piper Railway Supply Co.....Toronto.

Ships

Polson Iron Works.....Toronto.

Shovels

The Hudson's Bay Co.....

Side Bearings

Simplex Railway Appliance Co.....Montreal.

Signal House Numbers

Acton Burrows Co.....Toronto.

Signals

General Railway Signal Co.....Buffalo, N.Y.
N. L. Piper Railway Supply Co.....Toronto.

Signs

Acton Burrows Co.....Toronto.

Skylights

A. B. Ormsby (Ltd.).....Toronto.

Slack Adjusters

Chicago Railway Equipment Co.....Chicago, Ill.

Slotting Machines

The John Bertram Sons Co.....Dundas, Ont.

Smoke Jacks

Paul Dickinson.....Chicago, Ill.

Snow Ploughs

Crossen Mfg. Co.....Cohourg, Ont.
Charles F. Johnson.....Buffalo, N.Y.
Rhodes, Curry & Co.....Amherst, N.S.

Specialties in Brass and Iron Wire

The G. B. Meadows Wire, etc., Co.....Toronto.

Speedleut High Speed Steel

Montreal Steel Works.....Montreal.

Spikes, Railway, Ship or Pressed

Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Springs

Montreal Steel Works.....Montreal.
Standard Steel Works.....Philadelphia, Pa.

Station and Tower Heaters

W. C. Baker.....New York.

Stationery

Rolpb & Clark (Ltd.).....Toronto.

Station Name Signs

Acton Burrows Co.....Toronto.

Steam Attachments for Car Heating

W. C. Baker.....New York.

Steam Couplers

Safety Car Heating and Lighting Co...New York.

Steam Hammers

The John Bertram Sons Co.....Dundas, Ont.

Steam Shovels

M. Beatty & Sons.....Welland, Ont.
F. H. Hopkins & Co.....Montreal.
Charles F. Johnson.....Buffalo, N.Y.
W. H. C. Mussen & Co.....Montreal.

Steamship Supplies

The W. H. Kelson Co. Montreal.

Steamships

Polson Iron Works. Toronto.

Steamship Signs

Acton Burrows Co. Toronto.

Steam Steering Engines for Tugs

Sheriffs Mfg. Co. Milwaukee, Wis.

Steel

W. Abbott. Montreal.

F. H. Hopkins & Co. Montreal.

Wm. Jessop & Sons. Sheffield, Eng.

Williams & Wilson. Montreal.

Steel Buildings

Canada Foundry Co. Toronto.

Canadian Bridge Co. Walkerville, Ont.

Dominion Bridge Co. Montreal.

Steel for Springs

James Hutton & Co. Montreal.

Steel, Nickel for Nickel

The Orford Copper Co. New York.

Steel Plate

Jas. W. Pyke & Co. Montreal.

Steel Rolling Doors

W. H. C. Mussen & Co. Montreal.

A. B. Ormsby (Ltd.) Toronto.

Steel Tyres

James Hutton & Co. Montreal.

Jas. W. Pyke & Co. Montreal.

Stokers, Mechanical

Babcock & Wilcox (Ltd.) Montreal.

Structural Metal Work

Canada Foundry Co. Toronto.

Canadian Bridge Co. Walkerville, Ont.

Dominion Bridge Co. Montreal.

Locomotive and Machine Co. of Montreal.

Jas. W. Pyke & Co. Montreal.

Superheaters

Babcock & Wilcox (Ltd.) Montreal.

Switches

Montreal Steel Works. Montreal.

Switch Lamps

The N. L. Piper Railway Supply Co. Toronto.

Switch Ropes

The B. Greening Co. Hamilton, Ont.

Switch Targets

Acton Burrows Co. Toronto.

Tanks and Tank Fixtures

Canadian Fairbanks Co. Montreal.

Canada Foundry Co. Toronto.

Goold, Shapley & Muir Co. Brantford, Ont.

Ontario Wind Engine and Pump Co. Toronto.

Telegraph and Telephone Office Signs

Acton Burrows Co. Toronto.

Tests

R. W. Hunt & Co. Montreal.

H. Jarvis & Co. Chicago, Ill.

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The G. B. Meadows Wire, etc., Co. Toronto.

Tie Plates

Montreal Rolling Mills Co. Montreal.

Time Table Racks

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Tires

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Tool Steel

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Montreal Steel Works. Montreal.

Towers

Goold, Shapley & Muir Co. Brantford, Ont.

Track Jacks

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F. H. Hopkins & Co. Montreal.

Montreal Steel Works. Montreal.

W. H. C. Mussen & Co. Montreal.

A. O. Norton. Coaticook, Que.

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Crossen Car Mfg. Co. Cobourg, Ont.

Tracklaying Machinery

D. F. Holman Ry. Tracklayer Co. Chicago, Ill.

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F. H. Hopkins & Co. Montreal.

Montreal Steel Works. Montreal.

W. H. C. Mussen & Co. Montreal.

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Canada Foundry Co. Toronto.

Charles F. Johnson. Buffalo, N.Y.

Montreal Steel Works. Montreal.

Trucks (Railroad and Warehouse)

Canadian Fairbanks Co. Montreal.

Toronto Pressed Steel Co. Toronto.

Turbine Waterwheels

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Turnbuckles

Montreal Steel Works. Montreal.

Turntables

Canada Foundry Co. Toronto.

Canadian Bridge Co. Walkerville, Ont.

Dominion Bridge Co. Montreal.

Charles F. Johnson. Buffalo, N.Y.

Underwriters

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Valves, Brass Gate

Kerr Engine Co. Walkerville, Ont.

Valves, Brass Globe

Kerr Engine Co. Walkerville, Ont.

Valves, Iron and Brass

Canada Foundry Co. Toronto.

Canadian Fairbanks Co. Montreal.

Valves, Iron Gate

Kerr Engine Co. Walkerville, Ont.

Valves, Rubber

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Jas. W. Pyke & Co. Montreal.

Rhodes, Curry & Co. Amherst, N.S.

Standard Steel Works. Philadelphia, Pa.

Wheels, Locomotive

John McDougall & Co. Montreal.

Wheels, rolled, solid forged

Standard Steel Works. Philadelphia, Pa.

Wheels, steel tired

Standard Steel Works. Philadelphia, Pa.

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Dominion Wire Rope Co. Montreal.

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W. H. C. Mussen & Co. Montreal.

The Wire and Cable Co. Montreal.

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Wire, Copper

E. F. Phillips Electrical Works, Ltd. Montreal.

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H. W. Petrie. Toronto.

Wrecking Cranes

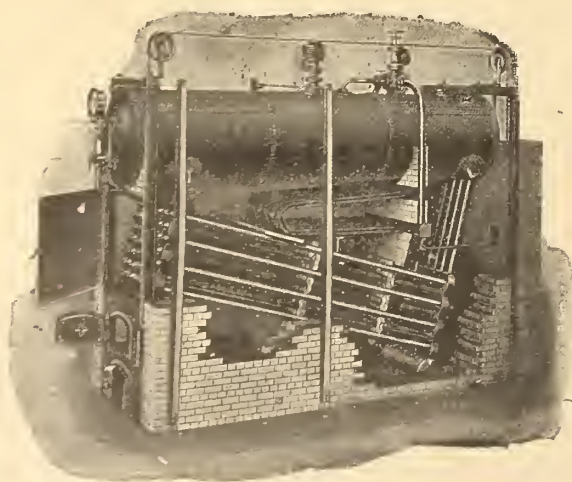
W. H. C. Mussen & Co. Toronto.

Wrought Steel Piping

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American Asphaltum & Rubber Co., Chicago.

Axe Steel

Montreal Steel Works, Montreal.

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W. Kennedy & Sons, Ltd., Owen Sound, Ont.
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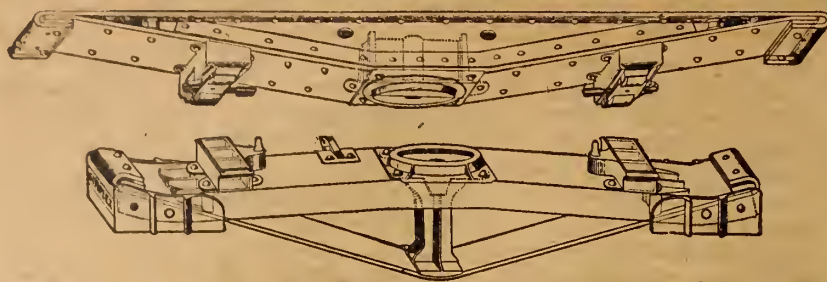
J. A. Dawson & Co., Montreal.

Enameled Iron Signs

Acton Burrows Co., Toronto.

(Continued on page 617.)

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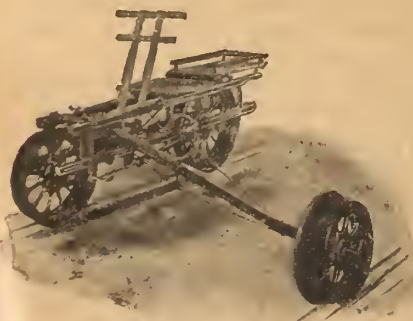
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